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M.A ECONOMICS

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AGRICULTURAL ECONOMICS

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UNIT I AGRICULTURAL ECONOMICS

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STRUCTURE

1.0 INTRODUCTION

Agricultural economics is a connected field of economics concerned about the utilization of monetary theory in improving the production and appropriation of nourishment and fiber. Agricultural economics started as a part of economics that explicitly managed land use it concentrated on augmenting the crop yield while keeping up a decent soil biological system. All through the twentieth century the order extended and the present scope of the control is a lot more extensive. Agricultural economics today incorporates an assortment of connected zones, having significant cover with regular economics. Agricultural financial analysts have made significant contributions to inquire about in economics, econometrics, improvement economics, and natural economics. Agricultural economics impacts food policy, agricultural strategy, and natural arrangement.

1.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about Agricultural Economics and its Nature and Scope.
2. Know the role of Agriculture in the Economic Development.
3. Gain knowledge on the interdependence between Agriculture and Industry.

1.2 MEANING AND DEFINITIONS

Agricultural Economics, as its title suggests is that part of economics which manages all parts of issues identified with agriculture. As indicated by Snodgrass and Wallace, "Agricultural economics is a connected period of the sociology of economics wherein consideration is given to all parts of issues identified with agriculture." Prof. Dim treats agricultural economics as a part of general subject of economics. It is just one of the numerous parts of connected economics. For example,

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Industrial Economics, Labor Economics, Monetary Economics, Transport Economics, Public Economics, International Economics, Household Economics, and so forth.

Consequently as indicated by Prof. Dim, agricultural economics just a period of a colossal field called economics in which primary consideration is paid to the investigation of the monetary issues related with agriculture, Prof. Dim characterizes agricultural economics, "as the science wherein the standards and techniques for economics are connected to the extraordinary states of agricultural industry." No uncertainty both these definitions are more extensive in degree, however these are not illustrative and are portrayed by unclearness agitated.

Prof. Hubbard has characterized agricultural economics as, "the investigation of relationship emerging from the riches getting and riches utilizing action of man in agriculture." This definition is based o Prof. Ely's meaning of economics and is minor likened to Marshall's origination of monetary exercises and in this way it is additionally restricted in degree.

As per Lionel Robbins, economics manages the issues of allocate productivity for example decision between different elective uses-especially when resources are rare—to amplify some given closures. In this way it gives systematic methods to assessing various portions of resources among elective uses Prof. Taylor characterizes agricultural economics in Robbinsian tone.

To utilize his words, "Agricultural economics treats of the choice of land, work, and hardware for a farm, the selection of crops to be developed, the determination of domesticated animals ventures to be continued and the entire inquiry of the scopes in which every one of these organizations ought to be joined. These inquiries are dealt with basically from the perspective of expenses and costs." As we probably am aware, financial exercises are separated into production, trade, dissemination and utilization, agricultural economics spread every one of them-what to create, how to deliver, the amount to create, what to offer, where to sell and at what cost to offer; what to convey, among whom to disperse and on what premise to appropriate; and what to expend and the amount to devour.

1.3 NATURE OF AGRICULTURAL ECONOMICS

Agricultural economics utilizes the standards of general economics. The primary point to be noted as to the idea of agricultural economics is that, by and large, it acquires the majority of its standard from its parent assortment of information i.e., the general economics.

Indeed, even the primary parts of agricultural economics are like those of general economics. Yet, at that point an inquiry emerges. In the event that the standards of general economics are not quite the same as the head of agricultural economics, for what reason is there a requirement for independent investigation of agricultural economics? The appropriate response lies in the way that agricultural economics does not only suggest an immediate use of standards of economics to the field of agriculture. The standards of economics are excessively broad in nature and the general theory of economics has been considered as a reflection from the real world. Before this theory is connected to agriculture which incorporates, other than yield production, ranger service and creature cultivation with the end goal of financial investigation, its standards must be changed so their hypothesizes absolutely count with the primary highlights of the circumstance of getting in the agricultural area.

A couple of models will make it obvious. We study in monetary theory, price development under different market structures e.g., restraining infrastructure, immaculate challenge and oligopoly. So far as agriculture is concerned, it is assumed that as the quantity of farmes is exceptionally huge and simultaneously, their size is generally little and the crops delivered are undifferentiated (homogeneous), flawless challenge is probably going to win is the agricultural produce market. As such, we will nearly be totally disregarding the investigation of price arrangement of agricultural produce under state of oligopoly or monopolistic challenge or imposing business model. At that point, there is the arrangement of tenure or yield partaking in agriculture – an issue specific to agriculture as it were. Investigation of this issue will require adjustment of the standard of resource distribution as propounded when all is said in done economics. The change of the financial standards, required to be made before being connected to agriculture are so huge and shifted that there is a finished defense for considering agricultural economics as a different group of information.

Micro as well as Macro

At the point when the subject of study is singular farmer then it is micro economics and when we study agricultural economy in general then it is called macro economics

Static as well as Dynamic

The fundamental distinction between the two is that in previous, time factor isn't considered while the last examination manages a timeframe. In the present day dynamic idea is picking up force.

Applied science or Pure science

Agriculturist economics, for example, Frosten and Leoger have arranged it as a connected science as it is concerned about the

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distinguishing proof, depiction and grouping of monetary issues of agriculture. In this manner, agricultural economics is concerned about the developing of fitting rules that oversee the measure of land, work, and capital that the farmer should use to expand his benefit and utilizing the factors productively.

Science or Art

Agriculture is the science and specialty of development of crops and raising the animals and isn't just a method of occupation yet in addition a lifestyle. Agricultural production economics is a science since it depends on the standards and checks of the information. It is a workmanship since it manages the different methods for use of the standards and to suit the conditions.

1.4 SCOPE OF AGRICULTURAL ECONOMICS

The prior definitions demonstrate the scope of agricultural economics. A typical topic of shortage of resources and selection of employments runs practically through these definitions. That way, agricultural economics isn't unique in relation to the general economics. Every one of the instruments of examination utilized when all is said in done economics are utilized in agricultural economics too. We have similar parts of agricultural economics for example economics of production, utilization, distribution, marketing, financing and arranging and policy presenting as in defense of general economics. An investigation at the micro and large scale level for the agricultural division is additionally commonly made. Static and dynamic examinations are likewise important for the agricultural sector of the economy. To be creatively explicit, these definitions call attention to that agricultural economics looks at how a farmer picks different undertakings e.g., production of crops or ascending of cows and how he picks different exercises in a similar endeavor. E.g., which yield to develop and which crop to drop; how the expenses are to be limited; what mix of contributions for an action are to be chosen; yet measure of each yield is to be created however kind of business connection the farmer must have with individuals from whom they buy their info or to whom they sail their product.

Agricultural economics does not think about just the conduct of a farmer. That is, as it were, the smaller scale examination. Agricultural issues have a macro perspective too. Shakiness of agriculture and agricultural unemployment are the issues which must be managed, for the

most part at the large scale level. And after that, there are the general issues of agricultural development and the issues like those concerning tenurial frameworks and tenurial courses of action, research and expansion services which are again overwhelmingly macro in character. Such issues their starting point, their effect and their answers are all the topic of agricultural economics. Once more, 'agricultural economics' as at present does not keep itself to the standards concerning 'conserving of resource in agriculture' just whether at the small scale or large scale level or from the 'static' a 'dynamic' perspective.

The scope of agricultural economics is bigger than 'simple conserving of resources'. Agriculture is, as we probably am aware a significant part, of the general economy. The shared interdependent of the different parts of the economy on one another is settled. Development of one division is important for the development of the other area. All things considered, in agricultural economics, we likewise study how improvement of agriculture helps the development of different areas of the economy; by what method can work and capital stream into the non-agricultural sectors; how agricultural development starts and continues the improvement of different parts of the economy. What this suggests is that agricultural economics not just creates concerning the utilization of rare resources in agriculture legitimate yet in addition looks at the standards (a) with respect to the out creation of alarm resources to different divisions of the economy and (b) about the creation of these resources from different parts into the agricultural sector itself.

Agriculture sector is viewed as the most significant in Indian situation. The scope of agricultural production economics incorporates production, dissemination, utilization and government exercises in connection to agriculture and farm ventures. To be creatively explicit, the scope of agricultural economics can likewise be investigated on the political viewpoint. Independence in food produce can decrease foreign interdependent fro nourishment supply and crude materials , uniquely in the midst of emergency. There is a huge scope of agri. economics in different components of production likewise viz. land, work, capital, association and so on. The scope of agricultural production economics as cited by Taylor " Agricultural economics manages the standards which underline the farmers' issues of what to create and how to deliver what to sell and how to sell so as to verify the biggest net benefit for himself reliable with the best enthusiasm of the general public in general. "

Principles applied in Agricultural Production Economics

- Law of equi-marginal return
- Law of diminishing return
- Law of opportunity cost
- Law of substitution

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- Law of comparative advantage
- Principle of combining enterprises
- Cost concepts and principles

1.5 ROLE OF AGRICULTURE IN ECONOMIC DEVELOPMENT

The agriculture sector is the foundation of an economy which gives the primary fixings to humankind and now crude material for industrialisation. Thusly, the job of agriculture for the improvement of an economy might be expressed as underneath:

Contribution to National Income

The exercises drawn from the monetary history of many propelled nations disclose to us that agricultural success contributed extensively in farming financial advancement. It is accurately seen that, "The main industrialized nations of today were once prevalently agricultural while the developing economies still have the predominance of agriculture and it to a great scope adds to the national income. In India, still 28% of national income originates from this division.

Source of Food Supply

Agriculture is the primary source of nourishment supply of the considerable number of nations of the world—regardless of whether under developed, developing or even created. Because of overwhelming weight of populace in under developed and developing nations and its quick increase, the investment for food is expanding at a quick rate. On the off chance that agriculture neglects to satisfy the rising need of nourishment products, it is found to influence antagonistically the development pace of the economy. Raising supply of nourishment by agricultural sector has, consequently, incredible significance for monetary development of a nation. Increase sought after for nourishment in an economy is controlled by the accompanying condition:

$$D = P + 2g$$

Here, D represents Annual Rate of Growth sought after for nourishment. P represents Population Growth Rate. g represents Rate of Increase in per Capita Income. 2 represent Income Elasticity of Demand for Agricultural Products.

Pre-Requisite for Raw Material

Agricultural advancement is important for improving the supply of crude materials for the agro-based ventures particularly in developing nations. The lack of agricultural merchandise has its effect upon on modern production and an ensuing increase in the general price level. It will obstruct the development of the nation's economy. The flour plants, rice sellers, oil and dal plants, bread, meat, milk products sugar processing plants, wineries, jute factories, material plants and various different ventures depend on agricultural products.

Provision of Surplus

The development in agricultural area gives surplus to expanding the fares of agricultural products. In the previous phases of improvement, an expansion in the fares winning is creatively alluring a result of the more noteworthy strains on the remote trade circumstance required for the financing of imports of fundamental and basic capital products. Johnson and Mellor are of the supposition, "In perspective on the critical requirement for extended foreign trade profit and the absence of elective chances, generous development of agricultural fare production is every now and again a judicious arrangement despite the fact that the world supply-request circumstance for a product is troublesome."

Shift of Manpower

At first, agriculture ingests an enormous amount of work power. In India still about 62% work is caught up in this sector. Agricultural development allows the move of labor from agricultural to non-agricultural part. In the underlying stages, the redirection of work from agricultural to non-agricultural area is creatively significant from the perspective of financial improvement as it facilitates the weight of surplus work power over the constrained land. In this way, the arrival of surplus labor from the agricultural part is vital for the development of agricultural sector and for growing the non-agricultural sector.

Production of Infrastructure

The development of agriculture requires roads, market yards, stockpiling, transportation railroads, postal services and numerous others for a foundation making investment for industrial products and the improvement of business sector.

Relief from Shortage of Capital

The development of agricultural sector has limited the weight of a few created nations who were confronting the lack of foreign capital. In the event that foreign capital is accessible with the 'strings' connected to it, it will make another critical issue. Agriculture division requires less

capital for its improvement hence it limits development issue of foreign capital.

Helpful to Reduce Inequality

In a nation which is overwhelmingly agricultural and overpopulated, there is more prominent disparity of income between the rural and urban zones of the nation. To decrease this disparity of income, it is important to accord higher need to agriculture. The flourishing of agriculture would raise the income of most of the rural populace and along these lines the difference in income might be diminished somewhat.

Based on Democratic Notions

On the off chance that the agricultural sector does not develop at a quicker rate, it might bring about the developing dissatisfaction among the majority which is never strong for the smooth running of equitable governments. For financial improvement, it is important to limit political just as social strains. On the off chance that most of the individuals must be aroused with the expectations of thriving, this can be accomplished with the assistance of agricultural development. Hence improvement of agriculture area is likewise applicable on political and social grounds.

Create Effective Demand

The improvement of agricultural area would will in general increase the buying intensity of agriculturists which will help the development of the non-agricultural part of the nation. It will give a market to expanded production. In under developed nations, it is notable that most of individuals rely on agriculture and it is they who must almost certainly stand to expend the merchandise delivered. In this manner, it will be useful in invigorating the development of the non-agricultural area. Thus improvement in the profitability of money crops may make ready for the development of trade economy which may help the development of non-agricultural area. Buy of modern products, for example, pesticides, farm hardware and so forth additionally give lift to industrial dead out.

Helpful in Phasing out Economic Depression

During depression, industrial production can be halted or decreased however agricultural production proceeds as it produces fundamental necessities of life. In this way it keeps on making viable investment notwithstanding during antagonistic states of the economy.

Source of Foreign Exchange for the Country

The greater part of the developing nations of the world is exporters of primary products. These products contribute 60 to 70 percent of their complete fare procuring. Along these lines, the ability to import capital merchandise and hardware for modern improvement depends essentially on the fare acquiring of the agriculture division. On the off chance that fares of agricultural merchandise neglect to increase at an adequately high rate, these nations are compelled to cause overwhelming shortage to be determined of payments bringing about a genuine remote trade issue. Be that as it may, primary products face declining costs in universal market and the possibilities of expanding send out profit through them are restricted. Because of this, huge developing nations like India (having possibilities of industrial development) are attempting to differentiate their production structure and advance the fares of produced products despite the fact that this requires the reception of defensive measures in the underlying time of arranging.

Contribution to Capital Formation

Under developed and developing nations need colossal measure of capital for its financial improvement. In the underlying phases of monetary improvement, it is agriculture that establishes a critical source of capital development. Agriculture sector gives resources to capital development from various perspectives as:

1. Agricultural taxation,
2. Export of agricultural products,
3. Collection of agricultural products at low prices by the government and selling it at higher prices. This method is adopted by Russia and China,
4. Labour in disguised unemployment, largely confined to agriculture, is viewed as a source of investible surplus,
5. Transfer of labour and capital from farm to non-farm activities etc.

Employment Opportunities for Rural People

Agriculture gives work chances to rural individuals on an enormous scale in under developed and developing nations. It is a significant source of vocation. For the most part, landless laborers and minimal farmers are occupied with non-agricultural occupations like handiworks, furniture, materials, cowhide, metal work, handling businesses, and in other service sectors. These country units satisfy only nearby requests. In India about 70.6% of complete work power relies on agriculture.

Improving Rural Welfare

It is time that rural economy relies upon agriculture and united occupations in an under developed nation. The rising agricultural surplus

brought about by expanding agricultural production and profitability will in general improve social welfare, especially in rural zones. The expectation for everyday comforts of rural masses rises and they begin devouring nutritious eating regimen including eggs, milk, ghee and natural products. They have an agreeable existence having every advanced enhancement a superior house, engine cycle, radio, TV and utilization of better garments.

Extension of Market for Industrial Output

Because of agricultural development, there will be expansion of market for industrial products. Increase in agricultural efficiency prompts increase in the income of country populace which is go prompts more investment for industrial products, consequently improvement of modern division. As indicated by Dr. Splendid Singh, "Increase in agricultural production and the ascent in the per-capita income of the rural network, together with the industrialisation and urbanization, lead to an expanded investment in modern production." along these lines, agricultural sector advances monetary development by verifying as an enhancement to industrial division.

1.6 INTERDEPENDENCE BETWEEN AGRICULTURE AND INDUSTRY

The interdependent of agriculture and industry helps the improvement of both the areas. The most significant part of this entomb interdependent is that the results of one fill in as significant contributions for the other. Development of one part consequently implies adequate supply of contributions for the other. The circumstance is to such an scope that a more prominent creation of products from one division to other at the same time guarantees a more noteworthy return stream of sources of info itself, however with some time slack. Help other people to help you in a word, totals up, improvement.

Limits of Interdependence

The account of the contribution of every division to the next ought not lead one to presume that this interdependent is contending. This isn't the situation. Every area utilizes a few sources of info which are not provided by the other division. For example industrial part does not rely on the agricultural sector for supply of minerals and salts as crude materials. Quite a bit of its capital is presently provided from its very own sources. It itself supplies apparatus to it. Likewise agricultural division will keep on relying on nature for specific data sources like

water supply even after industrial part has furnished it with waterways and current water system offices.

As utilization of apparatus is constrained in agriculture, human and creature power will keep on being significant contributions for the sector. For these data sources, the agricultural division will again rely on itself. Further, there are a few issues which are explicit to a specific part and the development of the other sector will leave these issues immaculate. What this suggests for the policy producers is that improvement of one area state, the industrial division, will doubtlessly expel a few obstructions in the method for further development of the agricultural part. And yet, it ought not be ignored that there are different preventions too which radiate from inside the agricultural part itself. These too need to possibly be taken care of. Same is the situation with the modern sector. Improvement of agricultural sector won't expel every one of the impediments hindering the development of the industrial part.

Contributions of Agriculture to Industries

Supply of raw materials to industries

Many industries look to the agricultural sector for supply of raw material.

Supply of wage goods

The market entries of food grains can be taken to speak to what agriculture can save for the non-agricultural sector as compensation products gave the market landings don't contain any misery sale with respect to the agriculturists. With this arrangement in view, we give underneath the market landings in the province of Punjab throughout the previous 30 years or somewhere in the vicinity. Punjab agriculture has created at a much quick pace as contrasted and that in different conditions of the nation and its pace of development of populace is one of the most minimal in the nation. Along these lines, there is motivation to accept that whatever is sold in the market is an authentic surplus saved by the agricultural division.

Agriculture and foreign trade

Despite the fact that India has been bringing in food grains for some of the time after freedom, it has additionally been sending out the results of Argo-based enterprises , along these lines , helping the nation , not exclusively to income for the food imports yet additionally for different imports which incorporates capital merchandise too. It is critical to note here that the major conventional fares of India are the cotton materials, Jute materials and tea.

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Provision of market for the industrial sector

The expanding income of the Farmsector prompts an extended investment for the customer's products created in the modern area. Despite the fact that no enquiry straightforwardly relating to this issue has been directed in India, the information gathered by the National Sample Survey association indicates that the merchandise delivered in the industrial division are finding their way into the utilization calendar of the rural individuals.

Provision of capital and labour to the non-agricultural sector

No information are accessible about the supply of these to contributions by the agricultural area to the industrial division. Since it is the agriculture which is the caretaker of capital and work in the underlying phases of monetary improvement, it tends to be decidedly attested that, these elements have moved to the modern area, predominantly from the agricultural sector, in introductory phases of financial development in the majority of the nations.

The contribution of the agriculturists in setting up of different businesses in England, of material industry in India and of some significant ventures in Japan is very known. The announcement about Indian work that it was transient in character and this was a direct result of its nexus with agriculture demonstrates that it was agricultural division which given work to the industrial area in the underlying phases of the development of the last mentioned.

Contributions of the Industrial Sector to the Agricultural Sector

Provision of modern inputs to the agricultural sector

One of the significant contributions of the industrial division is to give current contribution to agriculture. The sources of info are as composts, pesticides, hardware and so on.

Reduction of population pressure on land

Information in regards to move of populace from agricultural to non agricultural part in India does not yield an empowering picture. Interdependent of populace on agriculture during the most recent 50 years or so has not declined to any noteworthy degree. Developing populace and a moderate development of the industrial area are in charge of this static circumstance. Be that as it may, the populace information

concerning some created nations of Europe and that of the U.S.A., are very enlightening in such manner.

Provision of infrastructure

Almost certainly, a large number of the things included framework serve the agricultural part just as the modern area however these are given fundamentally by the industrial division. Transport, power, money related establishments, wellbeing services, instructive and examine organizations, all owe their reality for the most part to the offices given by the modern area.

1.7 LET US SUM UP

India has the tenth biggest arable land resources on the planet. With 20 agri-climatic locales, each of the 15 noteworthy atmospheres on the planet exist in India. The nation likewise has 46 of the 60 soil sorts on the planet. India is the biggest maker of flavors, beats, milk, tea, cashew and jute; and the second biggest maker of wheat, rice, products of the soil, sugarcane, cotton and oilseeds. Further, India is second in worldwide production of products of the soil, and is the biggest maker of mango and banana. During 2017-18 crop year, food grain production is assessed at account 284.83 million tons. In 2018-19, Government of India is focusing on foodgrain production of 285.2 million tons. Production of cultivation yields is assessed at 306.82million tons (mt) in 2017-18 according to third propel gauges. India is among the 15 driving exporters of agricultural products on the planet. Agricultural fares from India came to US$ 38.21 billion in FY18 and US$ 38.54 billion in FY19. Fares of prepared to eat things from India came to US$ 689.80 million in FY18 and have come to US$ 681.95 million in FY19. The Agriculture Export Policy, 2018 was endorsed by Government of India in December 2018. The new strategy means to expand India's agricultural fares to US$ 60 billion by 2022. India was the ninth biggest exporter of agricultural products in 2017.

The Electronic National Agriculture Market (eNAM) was propelled in April 2016 to make a bound together national market for agricultural products by systems service existing Agriculture Produce Marketing Committees (APMCs). Up to May 2018, 9.87 million farmers, 109,725 saleers were enrolled on the e-NAM stage. 585 mandis in India have been connected while 415 extra mandis will be connected in 2018-19 and 2019-20. Total exchange on the stage arrived at Rs 41,855 crore (US$ 6.49 billion) by March 2018. The Budget 2019 has distinguished Agriculture Sector as one of the key drivers of the economy. Under the financial limit Agricultural Marketing Infrastructure (AMI) conspire 40 lakh MT of capacity limit and 400 other marketing Infrastructure ventures are focused by 2019-20. The Government of India has

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acquainted a few undertakings with help the agriculture part. They are Pradhanmantri Gram Sinchai Yojana: The plan intends to flood the field of each farmer and improving water use productivity to accomplish the saying 'Per Drop More Crop'. Generally speaking the plan guarantees improved access to water system. Around 285 new water system activities will be adopted in 2018 to give water system to 18.8 million hectares of land. According to Union Budget 2019-20 the plan has been allotted US$ 565.16 million.

1.8 UNIT – END EXERCISES

1. Explain the any one scope of Agricultural Economics.
2. Define Agricultural Economics.

1.9 CHECK YOUR ANSWER HERE

1. Extension of Market for Industrial Output: because of agricultural development, there will be augmentation of market for modern products. Increase in agricultural profitability prompts increase in the income of rural populace which is go prompts more investment for industrial products, in this way improvement of modern part. As per Dr. Splendid Singh, "Increase in agricultural production and the ascent in the per-capita income of the country network, together with the industrialisation and urbanization, lead to an expanded investment in industrial production." thusly, agricultural division advances monetary development by verifying as an enhancement to modern sector.
2. Prof. Dark characterizes agricultural economics, "as the science wherein the standards and techniques for economics are connected to the extraordinary states of agricultural industry."

1.10 SUGGESTED READINGS

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UNIT - II CROPPING PATTERN IN INDIA

STRUCTURE

2.0 INTRODUCTION

Cropping pattern is a dynamic idea since it changes over existence. It very well may be characterized as the scope of territory under different crops at a point of time. At the end of the day, it is a yearly succession and spatial game plan of planting and decrepit on a given region. In India the cropping pattern controlled by precipitation, atmosphere, temperature, soil type and innovation. The cropping patterns in India can be introduced by contemplating the significant crops as the base yield and all other conceivable elective crops. It is imperative to recognize crops and their indicating agro-climatic condition with the goal that they can be sorted. For instance, wheat, grain and oats, are taken as one class.

2.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand the meaning and importance of cropping pattern in India.
2. Know about Agricu ltural under Five Year Plans of Government of India.
3. Gain knowledge on Green Revolution.

2.2 MEANING OF CROPPING PATTERN

Cropping Pattern mean the scope of territory under various yields at a point of time, changes in this dissemination additional time and factors deciding these changes. Cropping pattern in India is resolved predominantly by precipitation, atmosphere, temperature and soil type. Innovation additionally assumes a critical job in deciding crop design. Model, the appropriation of High Yield Varieties Seeds alongside manures in the mid 1960's in the districts of Punjab, Haryana and Western Uttar Pradesh expanded wheat production fundamentally. The variety of cropping frameworks has been one of the principle highlights of Indian agriculture. This might be credited to following two central point: Rainfed agriculture still accounts for over 92.8 million hectares or 65 percent of the edited zone. An enormous decent variety of cropping frameworks exists under rainfed and dryland regions with a superseding routine with regards to intercropping, because of more serious dangers engaged with developing bigger region under a specific yield.

Because of winning financial circumstances, (for example, interdependence of huge populace on agriculture, little land-holding size, high populace weight ashore resource and so on.), improving family unit food security has been an issue of incomparable significance to numerous million farmers of India, who establish 56.15 million minor (<1.0 hectare), 17.92 million little (1.0-2.0 hectare) and 13.25 million semi-medium (2.0-4.0 hectare) farm possessions, making together 90 percent of 97.15 million operational property. A significant result of this has been that yield production in India stayed to be considered, overall, a subsistence as opposed to business action.

2.3 IMPORTANCE OF CROPPING

A cropping framework refers to the sort and succession of crops developed and practices utilized for developing them. It incorporates all cropping groupings rehearsed over reality dependent on the accessible developments of yield production. Cropping frameworks have been customarily organized to expand crop yields. Presently, there is a strong need to configuration cropping frameworks which think about the rising social, prudent, and biological or ecological concerns.

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Crop Pattern	Region/State	Issues Related to Crop Pattern
Rice-Wheat	UP, Punjab, Haryana, Bihar, West Bengal, Madhya Pradesh	Over the years there is stagnation in the production and productivity loses. The main reasons for stagnation are: Over Mining of Nutrients from the soil. Declining Ground Water Table. Increase Pest Attacks and Diseases. Shortages of Labour. Inappropriate use of Fertilizers.
Rice-Rice	Irrigated and Humid coastal system of Orrisa, Tamil Nadu, Andhra Pradesh, Karnataka and Kerala	The major issues in sustaining the productivity of rice-rice system are: Deterioration in soil physical conditions. Micronutrient deficiency. Poor efficiency of nitrogen use. Imbalance in use of nutrients. Non-availability of appropriate trans planter to mitigate labour shortage during the critical period of transplanting.
Rice-Groundnut	Tamil Nadu, Andhra Pradesh, Karnataka, Orrisa and Maharashtra	The major issues in the pattern are: Excessive Rainfall and Water Logging. Non-availability of quality seeds. Limited expansion of Rabi Groundnut in Rice grown areas.
Rice-Pulses	Chhattisgarh, Orrisa and Bihar	Factors limiting Productivity are: Droughts and Erratic Rainfall distribution. Lack of Irrigation. Low coverage under HYV Seeds. Weed Attacks. Little attention to pest attacks and diseases. Marginalisation of land and Removal of Tribal from their own land.

Maize-Wheat	UP, Rajasthan, MP and Bihar	The Reason for Poor Yields are: Sowing Timing. Poor Weed Management. Poor Plant Varieties. Poor use of organic and inorganic fertilizers. Large area under Rain Fed Agriculture.
Sugarcane-Wheat	UP, Punjab and Haryana accounts for 68% of the area under sugarcane. The other states which cover the crops are; Karnataka and MP.	Problems in Sugarcane-Wheat system are: Late Planting. Imbalance and inadequate use of nutrients. Poor nitrogen use efficiency in sugarcane. Build-up of Trianthema partu lacastrum and Cyprus rotundus in sugarcane. The stubble of sugarcane pose tillage problem for succeeding crops and need to be managed properly.
Cotton-Wheat	Punjab, Haryana, West UP, Andhra Pradesh, Karnataka, Tamil Nadu.	Problems in Cotton-Wheat system are: Delay Planting. Stubbles of cotton create the problem of tillage operations and poor tilth for wheat. Cotton Pest like Boll Worm and White Fly. Poor nitrogen use efficiency in cotton.
Soya bean-Wheat	Maharashtra, MP and Rajasthan	Constraints limiting the soybean production and productivity are: A relatively recent introduction of soybean as a crop. Limited genetic diversity. Short growing period available in Indian latitudes. Hindered agronomy/availability of inputs at the farm level. Rainfed nature of crop and water scarcity at critical stage of plant growth. Insect pests and diseases, Quality improvement problems. Inadequate mechanization and partial adoption of technology by farmers have been identified.

Legume Based Cropping Systems (Pulses-Oilseeds)	MP, Gujarat, Maharashtra, Andhra Pradesh and Karnataka.	The major issues in Legume based system are: Lack of technological development. Loses due to erratic weather and waterlogging. Diseases and Pests. Low crop index, flower drop, indeterminate growth habit and very poor response to fertilizers and water in most of the grain legumes. Nutrient needs of the system have to be worked out considering N-fixation capacity of legume crops.

2.4 AGRICULTURAL DEVELOPMENT UNDER FIVE YEAR PLAN

THE FIRST PLAN (1951-56)

Following freedom, the nation was looked with two noteworthy issues – food emergency, and lack of industrial crude materials, for example, crude jute and crude cotton. The real goals of the First Plan in the field of agriculture were to address the awkward nature brought about by parcel in the supply of food grains and business crops and improve infrastructural offices.

Agriculture, including water system and power was in this manner agreed the most astounding need. That is the reason the First arrangement allocated the greatest need to the agrarian area. This is obvious from the way that 31 p.c. of the all out arrangement cost was dedicated to agriculture. Be that as it may, the First Plan set unassuming focuses for the production of generally crops.

The outcomes accomplished during the First Plan were very attractive for two overlay reason positive climate conditions and viable execution programs. Subsequently, the objective for food grains production was surpassed. As against the objective of 62 million tones, real production of food grains was about 66 million tones. Endeavors to improve agriculture were spread all through the nation and to include each town in it through the Community Development Program. Another

land arrangement was likewise received with the end goal of disposing of misuse and broadening security of residency.

THE SECOND PLAN (1956-61)

Nonetheless, there was an unexpected inversion of system during the Second Plan. The accentuation moved from agriculture to industry for three unique reasons:

1. The smooth execution of agriculture during the First Plan time frame
2. The plausibility of financing monetary improvement through foreign guide, especially food help and
3. The Consideration that overwhelming industry was the main sector of monetary improvement.

The Government adopted the procedure of growing substantial enterprises following the then Soviet model of industrialization. Thusly, the cost on agriculture was diminished to 20 percent from 31 percent made in the First Plan. Be that as it may, the scopes that production of real yields was concerned very aggressive targets were set. In any case, because of the reception of an off-base methodology, erroneous conclusion and poor usage of a large portion of the projects the exhibition of the agriculture was very terrible.

THIRD PLAN (1961-66)

The organizers in this way understood the methodology of development adopted during the Second Plan wasn't right. It was felt that, in an agrarian economy, any difficulty on the horticultural front would spell calamity for the entire economy. Subsequently, during the Third Plan the Government made more noteworthy allotment for agriculture i.e., Rs 1,745 crore contrasted with Rs.950 crore in the Second Plan. In any case, the rate portion of agriculture in complete arrangement cost stayed unaltered at 20. The primary goals of the Plan were to accomplish independence in food grains and increase in agriculture production to meet the necessities of industry and fare. Various organizations were set up to stretch out help to improvement exercises in various fields.

The introduction of the arrangement was or less palatable – at any rate in the initial four years. A account yield of 89 million tones had been accomplished if there should arise an occurrence of food grains. In any case, the exhibition in the most recent year was inauspicious because of the heartbreaking dry season of 1965-66 and two wars (one with China in 1962 and another with Pakistan in 1965). Notwithstanding,

In 1966-67, another procedure of agrarian improvement was adopted. The principle projects are as per the following.

1. High Yielding Varieties Programme (HYVP), and
2. The Multiple Cropping Programme - both based on the exotic, high – yielding, short duration crop varieties.

THE FOURTH PLAN (1969-74)

While the majority of the projects adopted under the new procedure were preceded in the Fourth Plan, another direction was granted to agrarian policy. So as to accomplish development with social equity, the agriculture arrangement laid weight on helping the more fragile and powerless sectors of the populace and in reverse regions. High need was agreed to innovation as noteworthy information. Other than satisfaction of independence, the arrangement conceived working up of a sizable support stock and stoppage of concessional imports of food grains.

Unassuming targets were fixed for rural production and practical distributions were made for agriculture and water system. The arrangement began with an upbeat note. The production of food grains arrived at an unequaled high of 108 million tons in 1970-71. Be that as it may, poor rainstorm in the following two years prompted crop disappointment and this made the issue of price swelling.

THE FIFTH PLAN (1974-79)

Restored accentuation was set on agriculture in the Fifth Plan. The development focus in the rural and associated sectors had been fixed at 3.94 p.c. Vital designation was made for significant projects like minor water system, high – yielding assortments of seed and distribution of manures.

As in the Fourth Plan, cost on agriculture was 21 percent of complete Fifth Plan expense. Aggressive targets were fixed for the agriculture area. Be that as it may, the exhibition was not attractive in the main year because of fall underway.

Because of difficulty on the agriculture front, the pace of development of the economy (as estimated by per capita income) arrived at a disappearing point. The exhibition of the horticultural sector anyway began improving from the subsequent year as yield arrived at another

account. Notwithstanding this, the Fifth Plan was stopped by one year by the recent decision party, the Janata Government.

THE SIXTH PLAN

The rural development design during the Sixth Plan time frame considered the quick just as long haul needs of horticultural products – both for local utilization and for fare. The most elevated need was relegated to conquering any hindrance winning among real and potential Farmyields even at current degrees of innovation through the evacuation of existing requirements. Agriculture and partnered exercises got sufficient consideration through the improvement of suitable bundles of innovation, services and public arrangements.

THE SEVENTH PLAN (1985-90)

All out cost on agriculture, water system and rural development was Rs.48,100 crore or 22 percent of the all out arrangement expense. The Seventh Plan went for an agrarian development pace of 4 percent p.a. also, the objective for food grains yield was kept at 3.7 percent p.a.

1. Special rice production programs in the Eastern district,
2. National Oilseeds Development Projects,
3. National Watershed Development Program for downpour overlap agriculture and
4. Social ranger service.

The area saw a development pace of 3.2 p.c.p.a. During the Seventh Plan, the zone under water system was proposed to be expanded at the pace of 2.5 million hectares p.a.

THE EIGHTH PLAN (1992-97)

The Eighth Plan offered need to the "Development and enhancement of agriculture to accomplish independence in food and produce a surplus for fares". Investment in agriculture, water system area and partnered areas demonstrated a sharp ascent over the past plans.

The portion of public and private divisions investments in the Eighth Plan in agriculture and rural improvement remained at 22 p.c. of the all out investment when contrasted with 11.23 percent in the Seventh Plan. The Eighth Plan planned for accomplishing a rural development pace of 4 percent. During the Plan Period a noteworthy exertion was given during the Eighth Plan time frame to build the yield of rice, heartbeats and oilseeds.

During the arrangement time frame, there has been a shortage in investment in every one of the areas, including agriculture where real

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venture was only 59 percent of arranged investment. Notwithstanding this, agriculture accounted a development pace of 4.7 percent. Toward the end year of that arrangement, food grains yield, nonetheless, contacted a account level of 199.3 million tones against the objective of 210 million tones.

THE NINTH PLAN (1997-2002)

The push of the Ninth Plan was to accomplish agriculture – drove development. Since 1960s the Planning Commission had concentrated on agriculture rather than industry in the Ninth Plan. It was focused on develop at 4.5 percent. p.a. during the Ninth Plan time frame. It conceived a nourishment production of 230 million tons against the 199 million tons accomplished in 1996-97.

Real production of food grains missed the mark regarding the focused on production. Real production was 212 million – a setback of 18 million tons. If there should be an occurrence of production of oilseeds, execution was baffling. Anyway, nourishment emergency did not rise in light of structure up of tremendous support load of food grains. To accomplish this development rate, the Planning Commission suggested a four-pronged methodology a suitable least help cost and information sponsorship arrangement. The public area had been assigned Rs.8,75,000 crore. Agriculture got an incredible 19.4 p.c. of the aggregate on expense. The real development rate in agriculture and partnered exercises missed the mark even of the overhauled focuses of 3.9 percent. Credited development rate for 1997-2002 came to 2.1 percent. The change procedure had neglected to invigorate our agrarian division.

THE TENTH PLAN (2002-07)

The Ninth Plan encountered a stoppage in the development capability of the economy that should have been switched in the Tenth Plan. To the scope the sectoral allotment of public resources is concerned, agriculture did not get high need in the Tenth Plan. Tenth Plan designation for agriculture, water system and so forth., added up to Rs.3,05,055 crore – an expansion of 51.4 p.c. over the Ninth Plan. It planned for pushing up the development pace of agriculture 2.1 p.c on the normal accomplished during the Ninth Plan to 4 p.c. during the whole Plan time of the Tenth Plan.

Tenth Plan accounted a development pace of 2.3 percent (due to poor rainstorm). Inadequate precipitation in 2002, 2004 and 2006 has prompted I) Poor agriculture development, ii) Reduction in the portion of agriculture in GDP from 23.8 percent in 2002-03 to 20.5 percent in 2006-07.

THE ELEVENTH PLAN (2007-12)

Against the scenery of hopeless exhibition of Indian agriculture during the Tenth Plan, a higher yearly development pace of 4 p.c p.a to accomplish the focused on GDP development pace of 10 p.c. over this arrangement period is critically required in the present arrangement.

To achieve such development rate, what is required is an improvement in the size of tasks any nature of rural changes presented by State Government and different offices. The procedures:

- Doubling the pace of development of watered zones.
- Improving water the board, water gathering and watershed improvement.
- Diversification of crops into high worth yields (organic products, vegetables, blooms, herbs and flavors) without aggravating nourishment security.
- Providing simple access to credit at moderate rates
- Refocusing ashore change issues.

THE TWELFTH PLAN (2012-17)

The push territories of agriculture for the twelfth arrangement time frame are as per the following.

1. Faster and comprehensive development through more expansion agriculture
2. Economics of scale to little and minimal farmers
3. Four percent development in GDP of agriculture and united sector
4. Enhanced Food and Nutritional Security
5. Stability in nourishment costs

The specific strategies are as follows:

- Structured diversification and sustaining growth in agriculture
- Enhancing use efficiency of resources and climate resilient technologies
- Vertical diversification for profit maximization
- Building –up carbon stock in soils
- In the light of above a host of programmes have been launched.

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2.5 GREEN REVOLUTION

The Green Revolution in India refers to a period when Indian agriculture was changed over into a industrial framework because of the reception of present day techniques and innovation, for example, the utilization of high yielding assortment (HYV) seeds, tractors, water system offices, pesticides, and manures. It was for the most part found by M.S. Swaminathan. This was a piece of the bigger Green revolution attempt started by Norman Borlaug, which utilized rural research and innovation to increase horticultural profitability in the developing scene. The Green Revolution inside India initiated in the mid 1960s that prompted an expansion in food grain production, particularly in Punjab, Haryana, and Uttar Pradesh. Significant achievements in this endeavor were the improvement of high-yielding assortments of wheat, and rust proof strains of wheat. In any case, rural researchers like M.S.Swaminathan and social researchers like Vandana Shiva are of the supposition that it caused more noteworthy long haul sociological and budgetary issues for the individuals of Punjab and Haryana.

The Green Revolution is referd to as the way toward expanding rural production by joining current instruments and systems. In the second 50% of Second Multi year plan, Ford Foundation supported a group of specialists welcomed by the Government of India to propose policies to help agrarian production and effectiveness. According to proposals of the master group, Government of India presented a thorough improvement program in 7 areas chose from seven States in the year 1960. This program was named as IADP (Intensive Area Development Program). Mid-1960s was primary period from the point of view of agriculture. New high - yielding assortments of wheat were created by Prof. Norman Borlaug and were received by various nations. Southern nations and South-East Asia began embracing them on a wide scale. This new 'horticultural methodology' was named as High - Yielding Varieties Program.

Features of the Green Revolution

- The introduction of the HYV seeds without precedent for Indian agriculture. These seeds had more accomplishment with the wheat crop and were profoundly successful in districts that had appropriate water system. So the primary phase of the Green Revolution was focused around states with better infra – like Punjab and Tamil Nadu.

- During the subsequent stage, the HYV seeds were given to a few different states. Furthermore, different yields than wheat were additionally included into the arrangement
- One primary necessity for the HYV seeds is appropriate water system. Yields from HYV seeds need rotating measures of water supply during its development. So the farmes can't rely upon storms. The Green Revolution immensely improved the inland water system frameworks around homesteads in India.
- The accentuation of the arrangement was for the most part on food grains, for example, wheat and rice. Money yields and business crops like cotton, jute, oilseeds and so on were not a piece of the arrangement
- Increased accessibility and utilization of composts to upgrade the profitability of the farmes
- Use of pesticides and weedicides to lessen any misfortune or harm to the yields
- And at long last the introduction of innovation and apparatus like tractors, collectors, drills and so forth. This encouraged tremendously to advance business farming in the nation.

Market Surplus

The Green Revolution by and far was a triumph. In any case, presently there was another angle to it. The service needed to guarantee that the advantage of the higher efficiency was passed on to the overall population. On the off chance that the farmers kept the grains for themselves, at that point the advantage of the higher efficiency would be lost. Be that as it may, fortunately this did not occur. Because of the high return and profitability of the farmes, the farmers began selling their produce in the business sectors. The bit of the produce which is sold by them is known as market excess. Thus the higher yield caused because of the Green Revolution began profiting the economy. There was a decrease in the costs of grains and such food products. The normal man had the option to effortlessly bear to get them. The service was even ready to stock grains and fabricate a nourishment bank if there should arise an occurrence of future food deficiencies.

Impact of the Green Revolution

Increase in Agricultural Production

Foodgrains in India saw an extraordinary ascent in yield. It was a wonderful increase. The greatest recipient of the arrangement was the Wheat Grain. The production of wheat expanded to 55 million tons in 1990 from only 11 million tons in 1960.

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Increase in per Acre Yield

Not exclusively did the Green Revolution increase the absolute horticultural yield, it additionally expanded the per hectare yield. If there should arise an occurrence of wheat, the per hectare yield expanded from 850 kg/hectare to an amazing 2281 kg/hectare by 1990.

Less Dependence on Imports

After the green revolution, India was at last on its policy to independence. There was presently enough production for the populace and to assemble a stock in the event of crises. We didn't have to import grains or rely upon different nations for our nourishment supply. Truth be told, India had the option to begin sending out its rural produce.

Employment

It was expected that business farming would leave a great sale of the work power jobless. Be that as it may, then again, we saw an ascent in rural work.

A Benefit to the Farmers

The Green Revolution significantly profited the farmers. Their income saw a huge raise. In addition to the fact that they were enduring, they were thriving. It empowered them to move to business farming from just food farming.

2.6 LET US SUM UP

Today, India positions second worldwide in farm yield. India is an agrarian nation and over 60% of populace relies upon agriculture for their business. While dwelling in urban zones might be we would not understand much significance of agriculture but rather this reality isn't new that agriculture is the primary source of income for real piece of our nation's populace. India's populace is becoming quicker than its capacity to create rice and wheat. The required degree of venture for the development of marketing, stockpiling and cold stockpiling framework is evaluated to be gigantic. The nation produces multitudinous yields extending from restorative to oat crops. These wares are utilized for different purposes from human utilization, in enterprises, for creature feed and so on. The majority of us don't know real classes of yields. We are ignorant of its important contribution to our economy. Disregarding the negative methodology of the residents living in urban regions, the

cropping exercises are keep on going on all the all year in India, if water is accessible for crops. Yields in India are comprehensively isolated into three noteworthy classifications, viz.

Kharif crops: The crops that are planted in the stormy season are called kharif crops. Its season begins from July and finishes in October, for example Maize, Sugarcane, Cotton, Jawar, Bajra soyabean, turmeric, paddy, moong, ground nuts , red chillies.

Rabi crops: The yields that are planted in the winter season are called rabi crops. Its season is during October to March, e.g Wheat, oil seed, beats, elastic beans.

Zaid crops: Crops developed among March and June are known as Zaid for example muskmelon, watermelon and vegetables like gatekeeper, pumpkin and so on.

At certain spots rice is created more in amount and at some different places more wheat is delivered. In certain locales maize, jute and in different areas sugar-stick is created. India produces various kinds of crops because of contrast in soil and atmosphere.

2.7 UNIT-END EXERCISES

1. Explain the importance of cropping in India.
2. State the Agricultural Development in the Fifth Five Year Plan.

2.8 CHECK YOUR ANSWER HERE

1. A cropping framework refers to the sort and arrangement of crops developed and practices utilized for developing them. It incorporates all cropping groupings rehearsed over reality dependent on the accessible developments of crop production. Cropping frameworks have been generally organized to expand crop yields. Presently, there is a strong need to configuration cropping frameworks which think about the rising social, prudent, and biological or natural concerns.
2. Renewed accentuation was set on agriculture in the Fifth Plan. The development focus in the agrarian and partnered sectors had been fixed at 3.94 p.c. Primary allotment was made for significant projects like minor water system, high – yielding assortments of seed and conveyance of manures. As in the Fourth Plan, cost on agriculture was 21 percent of all out Fifth Plan expense. Goal-oriented targets were fixed for the rural division. Be that as it may, the introduction was not tasteful in the main year because of fall underway. Because of misfortune on the agriculture front, the pace of development of the economy (as estimated by per capita

income) arrived at an evaporating point. The exhibition of the agriculture area anyway began improving from the subsequent year as yield arrived at another account. Regardless of this, the Fifth Plan was stopped by one year by the recent decision party, the Janata Government.

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UNIT-III AGRICULTURAL PRODUCTION

STRUCTURE

3.0 INTRODUCTION

We will increase understanding on the primary idea of production work from the unit. We will talk about how basic financial choices in agricultural production. We will likewise have great arrangement in the production work particularly the Cobb-Douglas and CES techniques. We will have a subtleties discourse on production relationship in the unit.

3.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand the economical decision of Agricultural Production.
2. Know about Cobb Douglas and CES models of Agricultural Production in India.
3. Gain knowledge on usefulness of Cobb Douglas and CES models of Agricultural Production.

3.2 AGRICULTURAL PRODUCTION IN INDIA

Since the introduction of monetary arranging in India, agricultural development has been accepting an exceptional accentuation. It was simply after 1965, i.e., from the mid-time of the Third Plan, uncommon accentuation was laid on the development of the agricultural sector. From that point forward, a colossal measure of reserve was dispensed for the improvement and modernization of this agricultural area consistently. Every one of these activities have prompted:

1. A consistent increase in regions under development;
2. A consistent ascent in agricultural efficiency; and
3. A rising pattern in agricultural production.

Growth in Area

In India the development in gross territory under all crops has expanded from 122 million hectares in 1949-50 to 151 million hectares in 1964-65 and afterward it expanded to 168.4 million hectares in 2008-09. Further, net territory under all food grains has expanded from 99 million hectares in 1949-50 to 118 million hectares in 1964-65 and afterward to 123.2 million hectares in 2008-09. Additionally, the gross region under all non-food grains has likewise expanded from 23 million hectares in 1949-50 to 33 million hectares in 1964-65 and after that to 45.2 million hectares in 2008-09.

In India, out of the all out cultivable zone of 186 million hectares, the net planted territory is assessed at 143 million hectares. Besides, the zones under development of all crops have expanded by 0.25 percent during the period 1980-81 to 1995-96 when contrasted with 0.51 percent during 1967-68 to 1980-81. Again the zone under food grain development has decay by 0.32 percent per annum between 1980-81 to 1995-96 when contrasted with an expansion in the territory of the tune of 0.38 percent between 1967-68 and 1980-81. During the pre-green insurgency period, i.e., during 1951-65 extra territory including minor grounds, neglected terrains, squander terrains and woodland grounds were brought under development. The yearly pace of development in territory under crops during the period 1950-65 was very generous.

All yields: 1.6 percent, Food grains: 1.4 percent and Non-food grains: 2.5 percent. Be that as it may, in the post-green upheaval period, i.e., during 1965-95, zone under all crops couldn't increase fundamentally and the yearly development rate in territory was additionally very least— All yields: 0.3 percent, Food-grains: 1.2 percent and Non-food grains: 0.7 percent.

3.3 COBB-DOUGLAS PRODUCTION FUNCTION

Clearly, the components of production (land, work, capital, and business person) influence production, consequently the name. In any case, this ambiguous subjective case can't stimulate our monetary bone. We need increasingly quantifiable answers. Also, the production capacity fills the need. Give us a chance to investigate the Cobb-Douglas Production Function.

As talked about, the production capacity gives a quantitative view of the connection between the information sources and yields. The sources of info are the different elements of production land, work, capital, and endeavor while the yields are the merchandise and

enterprises. To put it in an unexpected way, the production capacity can give us the most extreme products and enterprises that we can deliver utilizing a given measure of data sources. Further, it can likewise help us in deciding the information sources we require to accomplish a base degree of production. Note that a production capacity is characterized for a given condition of innovation.

As per Richard H.Lefthich: The term production capacity is pertinent to the physical connection between an association's contribution of resources and its yield of merchandise or services per unit of time leaving costs aside. Moving endlessly from complex definitions, we can say that the production capacity is a list of yield conceivable outcomes. Quantitatively, we can express the production work as a condition in which the yield is a reliant factor. Further, this yield is a component of the sources of info which are the free factors. The condition is as per the following:

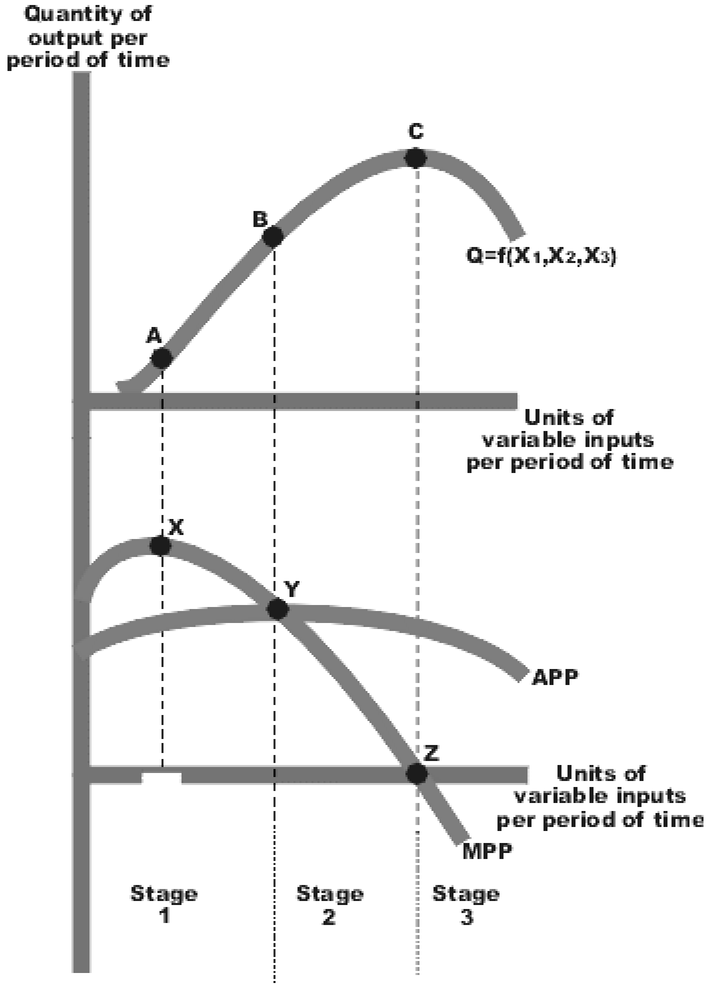
$$q= f(a, b, c\ldots\ldots, n)$$

Here 'q' represents the pace of yield of the given ware and a, b, c, d… ..n are the various information sources utilized per unit of time.

The Cobb-Douglas production work, named after Paul H. Douglas and C.W. Cobb, is a celebrated measurable production work. It was inferred to think about the entire of American assembling ventures. The Cobb-Douglas production capacity is as per the following:

$$Q= KL^{a}[C\text{^}(l\text{-}a)]$$

Here Q is yield, L is the amount of work, C is the amount of capital, l and an are certain constants. This investigation prompted the end that work contributes around 3/fourth and capital around 1/fourth of the expansion in assembling production.



Short Run Vs. Long Run

Note that we can take a gander at the production work through double cross casings short run and long run. The short run is a short interim of time, where we can change just the factor elements of production. To call attention to, these factor elements are the ones which we can change over a little timeframe, as the quantity of work, crude material, fuel, control, and so forth. Emblematically, Q= T(K, L). Further, we do this with the assistance of the law of factor scopes. Then again, the long run is a generally any longer timeframe. Clearly, over the long haul, we can change every one of the elements of production for example both fixed and factor elements. Consequently, over the long haul, we can change the processing plant size, systems of production, hardware, to the quantity of works, power, fuel, etc. In this way the

production capacity takes various structures as per the double cross casings. Clearly, we study production work regarding two diverse time periods. The long-run production capacity is the topic of the law of profits to scale.

3.4 CES PRODUCTION FUNCTION

Arrow, Chenery, Minhas and Solow in their new popular paper of 1961 built up the Constant Elasticity of Substitution (CES) work. This capacity comprises of three factors Q, C and L, and three parameters An, and. It might be communicated in the structure:

$$Q = A\,[aC^{-\theta} + (l\text{-}\alpha)L^{-\theta}]^{-1/\theta}$$

where Q is the all out yield, C is capital, and L is work. An is the productivity parameter showing the condition of innovation and hierarchical parts of production. It demonstrates that with industrial or potentially hierarchical changes, the productivity parameter prompts a move in the production work, α (alpha) is the appropriation parameter or capital power factor coefficient concerned about the relative calculate shares the all out yield, and θ (theta) is the substitution parameter which decides the versatility of substitution.

$$A > 0;\ 0 < a < 1;\ > -1.$$

The CES production function possesses the following properties:

1. The CES capacity is homogenous of degree one. On the off chance that we increase the data sources C and L in the CES work by n-crease, yield Q will likewise increase by n-overlap. Consequently like the Cobb-Douglas production work, the CES capacity shows constant comes back to scale.
2. In the CES production work, the normal and minimal products in the factors C and L are homogeneous of degree zero like all directly homogeneous production capacities.
3. From the above property, the incline of an isoquant, i.e., the MRTS of capital for work can be demonstrated to be arched to the root.
4. The parameter (theta) in the CES production capacity decides the flexibility of substitution. In this capacity, the versatility of substitution,

$$\sigma = 1/\ 1 + \theta$$

This demonstrates he versatility of substitution is a constant whose greatness relies upon the estimation of the parameter θ. In the event that $\alpha = 0$, at that point $a = 1$. In the event that $\theta = \infty$, at that point $a = 0$. On the off chance that $\theta = -0$, at that point $a = \infty$. This uncovers when $a = 1$, the CES production capacity turns into the Cobb-Douglas

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production work. On the off chance that $Q < 0$, at that point $a = -0$; and in the event that в < ∞, at that point $a < 1$. Therefore the isoquants for the CES production capacity go from right edges to straight lines as the versatility substitution ranges from 0 to.

5. As an end product of the abovementioned, if L and C data sources are substitutable ∞ for one another an expansion in C will require less of L for a given yield. Therefore, the MP of L will increase. In this manner, the MP of an info will increase when the other information is expanded.

3.5 IMPORTANCE OF COBB DOUGLAS PRODUCTION FUNCTION

The concept of production function is an important one:

- ❖ This idea is fundamental for understanding the theories of production. Truth be told investigation of production itself is an investigation of production work
- ❖ It is valuable for understanding the law of factor scopes
- ❖ It is additionally helpful for understanding the profits to scale
- ❖ It is likewise valuable for understanding the idea of expenses of production
- ❖ It is likewise valuable for comprehension the iso-quant bends

3.6 IMPORTANCE OF CES PRODUCTION FUNCTION

In summary the importance of CES are:

- ❖ It can be utilized for some products or factor situations where each is separated.
- ❖ It is Constant Return to Scale (CRS) work so equipped for Euler's Theorem that is every product or factor can be paid by the pace of it minor product. CRS will prompt zero benefit and depleted circulated of income over its factors or products
- ❖ Easy or composite price file and the utilization of Shepard lemma.

3.7 LET US SUM UP

In microeconomics and macroeconomics, the production capacities are sure non-constant capacities that determine the yield of a firm, an industry, or a whole economy for all blends of information sources. Practically all monetary investments assume a production work,

either on the firm level or the total level. Subsequently, the production capacity is one of the most key ideas of standard neoclassical theories. By accepting that the most extreme yield innovatively conceivable from a given arrangement of sources of info is accomplished, financial specialists continually utilizing a production work in examination are abstracting from the designing and administrative issues characteristically connected with a specific production process. In 1928, Cobb and Douglas presented a renowned two-factor production work, these days called Cobb-Douglas production work, so as to portray the circulation of the national income by assistance of production capacities.

3.8 UNIT – END EXERCISES

1. List the initiatives by the GOI for Agricultural Production.
2. Explain the importance of Cobb-Douglas Production Function.

3.9 CHECK YOUR ANSWER HERE

1. Initiatives:
    a. A enduring increase in territories under development;
    b. A enduring ascent in agricultural profitability; and
    c. A rising pattern in agricultural production.
2. The concept of production function is an important one:
    a. The idea of production capacity is a significant one:
    b. This idea is basic for understanding the theories of production. Truth be told investigation of production itself is an investigation of production work
    c. It is helpful for understanding the law of factor scopes
    d. It is additionally valuable for understanding the profits to scale
    e. It is likewise valuable for understanding the idea of expenses of production
    f. It is likewise valuable for comprehension the iso-quant bends

3.10 SUGGESTED READINGS

1. Sadhu and Singh, (2007), "Fundamentals of Agricultural Economics", Himalaya Publishing House, New Delhi.
2. Bilgrami, S.A.R. (2010), "An Introduction to Agricultural Economics", Himalaya Publishing House, New Delhi.
3. Bhalla, G.D. and G. Singh, (2012), "Economic Liberalisation and Indian Agriculture", Sage Publications, New Delhi.
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UNIT-IV PRODUCTION RELATIONSHIPS

STRUCTURE

4.0 INTRODUCTION

In farm production, monetary rationale is utilized. In agriculture production happens on different farms, i.e., crop production, dairy production. Agriculture production depends incompletely on nature and henceforth, it marginally differs from modern production. Agriculture is modernizing quite a long time after year and utilization of production economics is ending up wide. Notwithstanding, to what degree these sources of info ought to be utilized underway procedure is to be replied by production market analyst. Production economics isn't just utilized in crop production however in dairy industry and in fisheries moreover. There are three principle financial connections exists, those are as per the following:

1. Factor – Product relationship
2. Factor - Factor relationship
3. Product – Product relationship

4.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about the production relationship.
2. Know about the Factor-Product, Factor-Factor and Product-Product Relationships.

4.2 FACTOR-PRODUCT RELATIONSHIP IN AGRICULTURE

Factors refer to information and product refers to yield. Factor-Product relationship likewise refers to the theory of unavoidable losses. Yield production requires a few sources of info, for example, manure, bug sprays, water system water, seeds and so on., Here, significant issue can be understood by knowing factor product relationship. This relationship can be delineated with the assistance of following model. At the point when manure connected to edit, connection between compost connected and yield got can be communicated by three different ways:

1. Tabular form
2. Graphic form
3. Algebraic form

Production is the change of at least one contributions to at least one yields. Production capacity demonstrates the practical connection between the data sources utilized and yield got. A production capacity might be determined as pursues:

$$Y=f(x)$$

Where, Y = output; F= functional coefficient; X=vector of inputs

For example, production function of freshwater fish such as carps may be specified as follows:

$$Y=f(X1, X2, X3, X4, X5, X6)$$

Where, Y=output of farmed fish in kg/ha; X1=time used in kg/ha; X2 =Manure used in kg/ha; X3=Fertilizer used in kg/ha; X4=Seed or fingerlings in Nos/ha; X5=Feed used in kg/ha; X6=power in units consumed

The classical production curve shows that production region II alone is rational and the other regions, I & III are irrational

Tabular Form

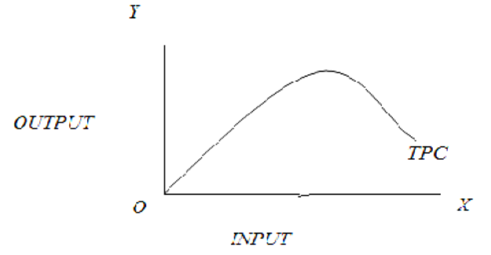
Production capacity can be communicated as a table, where one sector speaks to include, while another demonstrates the comparing absolute yield of the product. The two sectors establish production work.

Input (x)	Output (y)
0	2
10	5
20	11
30	18
40	25

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Graphical Form

The production capacity can likewise be delineated as a diagram; where flat hub (X pivot) speaks to enter and the vertical hub (Y hub) speaks to the yield.



Algebraic Form

Algebraically production function can be expressed as

$$Y= f(X)$$

Where , Y speaks to subordinate factor, (yield of crop, domesticated animals endeavor) and X speaks to autonomous factor, input (seeds, composts, fertilizer and so on), f = signifies capacity of When creatively number of information sources is associated with the production of an product, the condition is spoken to as

$$Y=f(X_1, X_2, X_3, X_4 \ldots\ldots\ldots X_n)$$

If there should arise an occurrence of single factor production work, just a single factor is permitted to change, keeping others consistent, can be communicated as

$$Y=f(X_1 \mid X_2, X_3 \ldots\ldots\ldots X_n)$$

The vertical bar is used for separating the factor input from the fixed input. The equation denotes that the output Y depends upon the factor input X1, with all other inputs held constant. If more than one factor input is varied and few others are held constant, the relationship can be expressed as

The vertical bar is utilized for isolating the factor contribution from the fixed information. The condition signifies that the yield Y relies on the factor information X1, with every other information held

consistent. In the event that more than one factor info is differed and couple of others are held constant, the relationship can be communicated as

$$Y=f(X_1, X_2 \mid X_3, X_4 \ldots\ldots X_n)$$

Production function can also be expressed as

$Y=a+bX$ ______________ Linear production function

Where Y is dependent factor, a is constant, b is coefficient, X is independent factor

The constant a speaks to the measure of product got from the fixed factor if none of the factor info is connected, while b is the measure of yield created for every unit of X (input) connected.

$$Y = aX^b$$

Is an exponential equation and is known as Cobb-Douglas production function. $Y = a+bX\pm cX^2$ is quadratic equation.

Law of Diminishing Returns

The factor - product relationship or the measure of an resource that ought to be utilized and thusly the measure of yield that ought to be delivered is straightforwardly identified with the task of theory of consistent losses. This law clarifies how the measure of product got changes as the measure of one of the resources is shifted while the measure of different resources is fixed. It is otherwise called law of factor scopes or rule of included expenses and included returns.

Definitions

1. An increase in capital and work connected in the development of land causes all in all not exactly proportionate increase in the measure of produce raised, except if it happens to concur with the enhancements in expressions of the human experience of agriculture (Marshall)
2. If the amount of one of gainful service is expanded by equivalent additions, with the amount of other resource services held consistent, the augmentations to add up to product may increase from the start however will diminish after certain point (Heady)

Limitations

The law of diminishing returns fails to operate under certain situations. They are called limitations of the law.

1. Improved methods of cultivation
2. New soils and

3. Insufficient capital.

Why the law of diminishing returns operates in agriculture

The **law of diminishing returns** is pertinent not exclusively to agriculture yet in addition fabricating businesses. This law is as widespread as the law of life itself. On the off chance that the business is extended too muc h and turns out to be unwidely, supervision will end up troublesome and the costs will go up. The theory of consistent losses, in this manner set in. The main contrast is that in agriculture it sets in prior and in industry a lot later. There are a few explanations behind the activity of theory of unavoidable losses in agriculture. The reasons are:

1. Excessive dependence on weather.
2. Limited scope for mechanization.
3. Limited scope for division of labour.
4. Agriculture uses larger proportion of land resource.
5. Soil gets exhausted due to continuous cultivation.
6. Cultivation is extended to inferior lands.

Concepts of production

Total product (TP)

Measure of product which results from various amounts of factor information. All out product demonstrates the specialized productivity of fixed resources.

Average Product (AP)

It is the proportion of all out product to the amount of info utilized in delivering that amount of product. AP= Y/X where Y is absolute product and X is all out info. Normal product demonstrates the specialized productivity of factor information.

Marginal product (MP)

Extra amount of yield coming about because of an extra unit of info. MP= Change in all out product/Change in info level (?Y/? X)

Total Physical Product (TPP)

All out product communicated as far as physical units like kgs, quintals, tons is named as all out physical product. Correspondingly if AP

and MP are communicated as far as physical units, they are called Average Physical Product (APP) and Marginal Physical Product (MPP).

Total Price Product (TVP)

Expression of TPP in terms of monetary price, it is called Total Price Product. TVP = TPP ? Py or Y? Py

Average Price Product (AVP)

The expression of Average Physical Product in money price. AVP = APP ? Py

Marginal Price Product (MVP)

When MPP is expressed in terms of money price, it is called Marginal Price Product. MVP = MPP ? Py or (?Y/?X) ? Py ? Y. Py / ? X

Relationship between Total Product (TP) and Marginal Product (MP)

- When Total Product is expanding, the Marginal Product is certain.
- When Total Product stays constant, the Marginal Product is zero.
- When Total Product diminishes, Marginal Product is negative.
- As long as Marginal Product builds, the Total Product increases at increases at expanding rate.
- When the Marginal Product stays constant, the Total Product increases at consistent rate.
- When the Marginal Product decays, the Total Product increases at diminishing rate.
- When Marginal Product is zero, the Total Product is greatest.
- When minor product is under zero (negative), all out physical product decays at expanding rate.

Three Regions of Production-Economic decisions

Stage I

It is called nonsensical zone of production. Any degree of resource utilize falling in this locale is uneconomical. The specialized effectiveness of factor resource is expanding all through the zone (APP is expanding). Along these lines, it isn't sensible to quit utilizing an information when its productivity is expanding. In this zone, more products can be acquired from a similar resource by redesigning the blend of fixed and factor data sources. Hence, it is called unreasonable zone of production.

Stage II

It is balanced zone of production. Inside the limits of this district is the zone of monetary pertinence. Isale point must be some place in this sane zone. It can, in any case, be found just when information and yield costs are known.

Stage III

It is likewise a territory of silly production. TPP is diminishing at expanding rate and MPP is negative. Since the extra amounts of resource decreases the absolute yield, it isn't beneficial zone regardless of whether the extra amounts of resources are accessible at free of expense. On the off chance that if a farmer works in this zone, he will bring about twofold misfortune. i.e.,

1. Reduced Production
2. Unnecessary additional Cost of inputs.

4.3 FACTOR-FACTOR RELATIONSHIP IN AGRICULTURE

1. This relationship manages the resource blend and resource substitution.
2. Cost minimization is the objective of factor - factor relationship.
3. Under factor-factor relationship, yield is kept consistent, input is fluctuated in amount.
4. This relationship manages the maker in choosing 'How to deliver'.
5. This relationship is clarified by the standard of factor substitution or rule of substitution between sources of info.
6. Factor-Factor relationship is concerned about the assurance of least cost blend of resources.
7. The decision pointers are substitution proportion and price proportion.
8. Algebraically, it is communicated as

$$Y = f(X1\ X2\ /\ X3\ X4\ \ldots\ Xn)$$

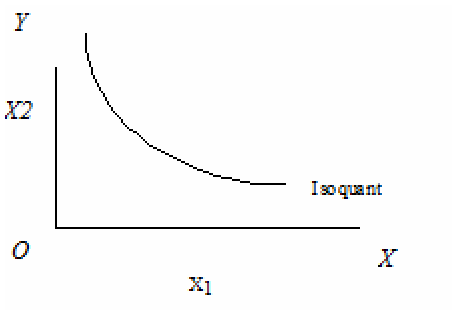
In the production, inputs are substitutable. Capital can be substituted for work and the other way around, grain can be substituted for grub and the other way around. The maker needs to pick that info or data sources, practice or practices which produce a given yield with least

expense. The maker goes for cost minimization i.e., selection of sources of info and their mix.

Isoquants

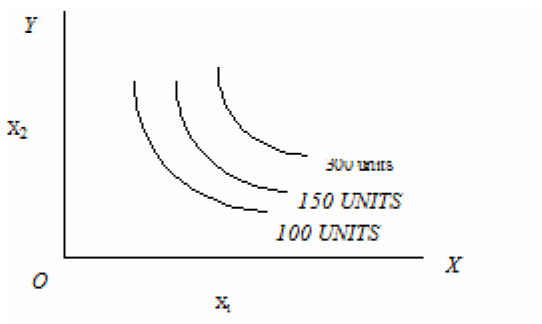
The connection between two factors and yield can't be given two dimensional diagram. This includes three factors and can be displayed in three dimensional graph giving a production surface. An isoquant is a helpful strategy for compacting three dimensional picture of production into two measurements.

An isoquant speaks to every conceivable blend of two resources (X1 and X2) physically fit for developing a similar amount of yield. Isoquants are otherwise called isoproduct bends or equivalent product bends or product lack of concern bends.



Isoquant Map or Iso product Contour

On the off chance that number of isoquants are drawn on one diagram, it is known as isoquant map. Isoquant guide shows the state of production surface which thusly demonstrates the yield reaction to the sources of info.



Characteristics of Isoquants

1. Slope downwards from left to right or negatively sloped.
2. Convex to the origin.
3. Nonintersecting

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4. Isoquants lying above and to the right of another represents higher level of output.
5. The slope of isoquant denotes the marginal rate of technical substitution (MRTS).

Marginal Rate of Technical Substitution (MRTS)

It refers to the sum by which one resource is diminished as another resource is expanded by one unit. Or then again The pace of trade between certain units of X1 and X2 which are similarly liked.

MRTSX1X2 = ? X2/? X1

MRTSX2X1 = ? X1/ ? X2

Negligible Rate of Technical Substitution= Number of units of supplanted resource Number of units of included resource The slant of Isoquant demonstrates MRTS.

Substitutes

A scope of info blends which will create a given degree of yield. When one factor is diminished in amount, a subsequent factor should consistently be expanded MRTS is in every case under zero.

Perfect Substitutes

At the point when two resources are totally compatible, they are called impeccable substitutes. The isoquants for immaculate substitutes is adversely slanted straight lines. The MRTS is consistent. Ex: Family work and enlisted work, Farm created and acquired seed and so forth.

Complements

Two resources which are utilized together are called supplements. On account of supplements decrease in one factor can't be supplanted by an expansion in another factor. MRTS is zero.

Perfect Complements

Two resources which are utilized together in fixed scope are called immaculate supplements. It implies that just one careful blend of data sources will deliver a specific degree of yield. The isoquant for this situation is of a correct edge. Ex: Tractor and driver, Pair of bullocks and worker.

4.4 PRODUCT-PRODUCT RELATIONSHIP IN AGRICULTURE

1. Product-Product relationship manages resource distribution among contending endeavors.
2. The objective of Product-Product relationship is benefit boost.
3. Under Product-Product relationship, inputs are kept consistent while products (yields) are shifted.
4. This relationship directs the maker in choosing 'What to deliver'
5. This relationship is clarified by the standard of product substitution and law of equi-negligible returns.
6. This relationship is concerned about the assurance of isale mix of products (ventures).
7. The decision makers are substitution proportion and price proportion.
8. Algebraically it is communicated as

$$Y1=f\,(Y2\ Y3, \ldots\ldots.\ Yn)$$

Production Possibility Curve (PPC)

Production Possibility Curve is an advantageous gadget for portraying two production works on a solitary chart. Production Possibility Curve speaks to every conceivable mix of two products that could be delivered with given measures of sources of info. Production Possibility Curve is known as Opportunity Curve since it speaks to all production potential outcomes or publicings accessible with restricted resources. It is called Isoresouce Curve or Iso factor bend on the grounds that each yield mix on this bend has a similar resource prerequisite. It is additionally called Revolution bend as it shows the pace of change of one product into another.

How to draw Production Possibility Curve

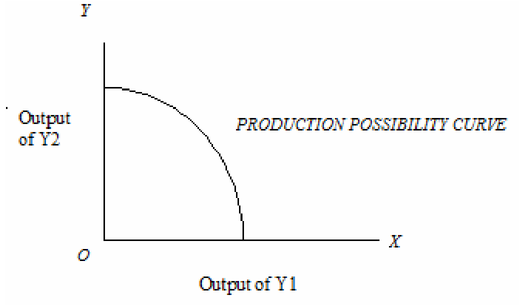
Production Possibility Curve can be drawn either straightforwardly from production work or from complete cost bend. The technique for drawing Production Possibility Curve from Production Function is clarified underneath:

A farmer has five sections of land of land and needs to create two products Viz cotton (Y1) and Maize (Y2). Expect every other information are fixed. Presently the farmer needs to choose the amount of land contribution to use on every product. The measure of land that can be utilized to create Cotton (Y1) relies on the measure of land used to deliver Maize (Y 2). Along these lines Y 1= f (Y2) The assignment of land resource between the two products and the yield from various portions of land information are exhibited underneath:

Allocation of Land in Acres		Output in Quintals	
Y1	**Y2**	**Y1**	**Y2**
0	5	0	60
1	4	8	48
2	3	15	36
3	2	21	24
4	1	26	12
5	0	30	0

As evident from the above data, if all 5 acres of land are used in the production of Y2 we obtain 60 quintals of Y2 and do not get any Y1. On the other hand, if all the five acres of land are used in the production of Y1 we can obtain 30 quintals of Y1 and do not get any Y2. But these are the two extreme production possibilities. In between these two, there will be many other production possibilities. Plotting these two points on a graph, we get the Production Possibility Curve.

As clear from the above information, if every one of the 5 sections of land of land are utilized in the production of Y2 we acquire 60 quintals of Y2 and don't get any Y1. Then again, if all the five sections of land of land are utilized in the production of Y1 we can get 30 quintals of Y1 and don't get any Y2. In any case, these are the two outrageous production conceivable outcomes. In the middle of these two, there will be numerous other production potential outcomes. Plotting these two on a diagram, we get the Production Possibility Curve.



4.5 LET US SUM UP

The overflowing of new industrial data is making the Farmissues creatively testing and giving appealing chances to augmenting benefits. Consequently, the utilization of financial standards to farming is basic for the effective service of the farm business. Some of the time reasoning and religion preclude the farmers to develop certain endeavors, however they are profoundly beneficial. For instance, Islam restricts Muslim farmer to take up piggery while Hinduism precludes meat production. The different bits of enactment and activities of government influence the production choices of the farmer, for example, roof ashore, bolster costs, nourishment zones and so forth. The physical sciences indicate what can be delivered; economics determine how resources ought to be utilized, while humanism, brain research, political theories and so forth indicate the restrictions which are put on decision, through laws, traditions and so on. The Agricultural Economics Principles tackles the issues of the amount to deliver? It controls in the assurance of isale contribution to utilize and isale yield to deliver. It clarifies the one of the fundamental production connections viz., factor-product relationship

4.6 UNIT-END EXERCISES

1. Explain farm production.
2. What is the tabular form for factor-product relationship.

4.7 CHECK YOUR ANSWER HERE

1. In Farm production, financial rationale is utilized. In agriculture production happens on different farms, i.e., crop production, dairy production. Agriculture production depends somewhat on nature and thus, it marginally shifts from modern production. Agriculture is modernizing quite a long time after year and utilization of production economics is winding up wide. Be that as it may, to what degree these information sources ought to be utilized underway procedure is to be replied by production financial specialist. Production economics isn't just utilized in crop production however in dairy industry and in fisheries too.
2. Production capacity can be communicated as a table, where one section speaks to include, while another demonstrates the comparing all out yield of the product. The two sectors comprise production work.

NOTES

4.8 SUGGESTED READINGS

1. Sadhu and Singh, (2007), "Fundamentals of Agricultural Economics", Himalaya Publishing House, New Delhi.
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UNIT-V AGRICULTURAL CAPITAL FORMATION

STRUCTURE

5.0 INTRODUCTION

Agricultural credit gave legitimately to farmers, called direct fund to farmer for agriculture, is either present moment or long haul. While momentary credit empowers cultivators to obtain data sources, for example, compost and seeds required for agricultural activities, long haul credit is intended for investment in fixed resources, for example, water system siphons, tractors, agricultural hardware, etc, in this manner highlighting capital arrangement. Hence, private capital development in agriculture is dominatingly subject to long haul credit. There are evident purposes for this. Private investment in agriculture depends, in addition to other things, for the most part on investable resources and anticipated pace of degree of profitability, which, thusly, is dictated by the costs of agricultural sources of info and yield. It is with regards to accessibility of investable resources that the credit from monetary organization turns out to be basically significant.

5.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about the agricultural capital formation meaning and its importance.
2. Know about the Public and Private Investment in Agricultural Sector.
3. Can gain knowledge on Cost Relationship and Profit Maximization.

5.2 MEANING AND CONCEPT OF AGRICULTURAL CAPITAL FORMATION

During the late eighties and mid nineties, a worry has been raised about the falling portion of public division capital arrangement in agriculture. With the assumption that there exists high integrally among

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public and private capital development, it is battled by different investigations that declining pattern in the previous is probably going to have antagonistic effect on generally speaking capital arrangement of the area. This may block the general development of the area and its contribution to the GDP may fall further. Capital Formation expect fundamental significance with regards to strategy making by the State and Central Governments. It goes about as a pointer in the estimation of financial development of State. It uncovers the probability of the investment in the general population just as the private areas and gives net expansion to the benefits made during the year. This is creatively significant in agriculture where we are looked with the assignment of expanding production to keep pace with the expansion in populace against the chances of the notions of storm.

Reserve funds are significant for venture. In agriculture, there is much sparing. This can be seen from the way that business banks can prepare more investment funds from agriculture. Such reserve funds are spent for venture purposes in businesses in the towns. In view the significance of the agricultural division. The Govt. has endeavored at reinforcing the part. The HYV program has been presented. The concentrated Agricultural District Program, Multiple Cropping, Dry Framing and so forth have likewise been presented. To help the little farmers numerous organizations have been made. Co-employable development is reinforced to make rural projects powerful.

Capital Formation expect need with regards to policy making by Government and other partners as it goes about as a pointer in achieving financial development. It uncovers the probability of the investment in general society just as the private areas and gives net expansion to the advantages made during the year. Capital development is creatively significant in agriculture as expanding production and efficiency of Indian agriculture.

Investment in agriculture is by and large attempted for getting physical resources (tractors, wells, bore wells, reaper, fencing, sheds and so on.,) that outcome in the making of stream of constant income over some undefined time frame is called capital arrangement is agriculture.

5.3 PUBLIC INVESTMENT IN INDIAN AGRICULTURAL SECTOR

The expansion in least help costs (MSPs), which guarantees up to 97% increase consequently on expenses, can turn into the trigger for

animating truly necessary investment in agriculture by the Indian farmer. Be that as it may, it should be supported by different factors that go towards making farming gainful. Like all divisions, agriculture also relies on pulling in investment for fast development. This requests quickened investment from farming families, other than more noteworthy capital proficiency. The service of agriculture gauges that to twofold farmer wages by 2022-23, private investment in agriculture must bounce multiple times to nearly Rs 1,40,000 crore. Private ventures refer to investments made by farmers themselves, comprehensive of their own investment funds and borrowings from institutional and non-institutional sources. Since the choice to contribute happens inside each farming family unit, and opportunity expenses are high, the genuine inquiry is: by what means would india be able to urge farming families to help investment in their homesteads? The appropriate response lies in releasing the pioneering energies of the smallholder farmer, particularly those previously thinking financially and sell in any event 33% of their yield. On account of their lion's share, such smallholders by and large have the most astounding inactive vitality for moving the needle on agricultural development.

Smallholders (with up to 2 hectares of land) run 85% of the all out farmes in India and claim over half of the domesticated animals. They are exceedingly cognisant of the need to contribute. In Odisha, where 92% are smallholders, each farming family spent all things considered Rs 1,142 per month on yield production, as indicated by National Sample Survey Office (NSSO) 2012-13. However, because of the low profitability, low production and absence of market motivating forces, families get no proportionate return. In this way, smallholders have, on a normal, under 10% portion of the all out private investment in farming.

What might urge them to contribute? Benefit, Assured purchasing, and fare request in certain years, invigorated investment in wheat, rice, cotton, mentha, guar, a couple of heartbeats and sugarcane. In any case, farmers are baffled by the high passage boundaries to fluid and controlled markets. On the off chance that they do enter, the exchange of market powers doesn't really empower reasonable play, trust and straightforwardness. There are not many policies to moderate the higher hazard in high-esteem agriculture crops. Along these lines, even little business farmers much of the time endure basically on income from income work. As money related markets illustrate, access to business sectors is lacking. Markets require the 'obvious hand' to ensure little members with the goal that they have office. States should comparatively create and safeguard agricultural markets that work for smallholders by lessening exchange expenses and counterparty dangers, and raising price revelation, price straightforwardness and saleing power.

Since smallholders till mostly rented land with dubious and casual residency, they have minimal impetus to take long haul capital advances for investments, for example, micro water system, which moderate hazard. Reasonably changed land-renting laws can energize investments in land improvement. In like manner, investment in dairy and poultry will increase by the motivating forces from coordination into tight worth chains. Smallholders have consistently been amped up for innovation. The appropriation of cross breed maize by Bihar's smallholders, half breed vegetables in Maharashtra, solarpower siphons in Gujarat, for example, exhibit their excproductent to improve productivity and de-hazard income when terms of exchange turn positive.

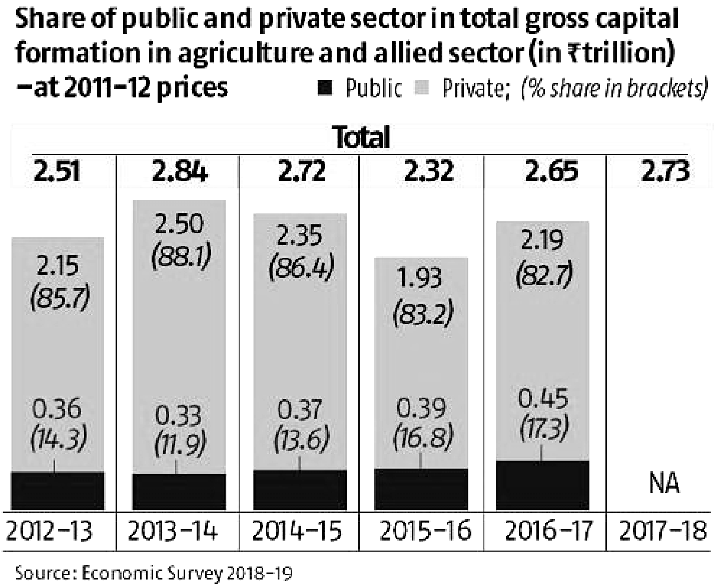
Strong public augmentation services can raise returns on this venture. Next comes capital. About 86% of farm investment relies upon advances. Smallholders get about portion of their credits from moneylenders, merchants and information vendors. Reimbursing obligation is an undeniably more convincing thought than purchasing apparatus. Intentional endeavors towards money related consideration, and accentuation on long haul capital, could kick-begin the righteous cycle. Most importantly, smallholder farming is straightforwardly empowered by public venture. Agricultural development is private area, however requires huge investment in public merchandise rural roads, training, inquire about, water system, expansion, money, organizations for ladies farmers' cooperation. As indicated by service of agriculture, public investment must become 16.8% every year, up from around 10%, to accomplish the objective of multiplying farmer salaries.

When the biological system for empowering agriculture development reinforces, the corporate sector, with a 2% current offer in the general investment, will wander nearer to the base of the pyramid, offering smallholders linkages to innovation, services and aggressive markets. High development in agriculture springs at last from the combination of benefits, learning and power in the hands of smallholder business farmers. Regardless of poverty and disregard, they consider themselves to be business people, willing to attempt new yields, cultivars, animals and elective advances to expand profitability, enhance production, lessen hazard and increase benefits. The time has come to take advantage of this enterprising vitality by making, and empowering, public doors for them to put resources into a splendid future.

5.4 PRIVATE INVESTMENT IN INDIAN AGRICULTURAL SECTOR

Private investment in agriculture has seen a decrease over the most recent couple of years while the public part's job is developing,

pointing towards a more profound reason for worry in the farming sector. A key purpose behind melting away private sector enthusiasm for the sector could be over the top principles and control in the area, something the service needs to survey genuinely pushing ahead.



India is thinking about easier principles to draw in increasingly corporate investment in agriculture as Prime Minister Narendra Modi looks to stay faithful to his contribution to twofold farmers' income by 2022, a counsel to the Government said. Asia's third-biggest economy, the greater part the nation's populace rely upon farming for their employment, ought to loosen up standards for organizations putting resources into contract farming, transport, marketing, stockrooms and food preparing, said Ramesh Chand, individual from the service research organization National Institution for Transforming India, likewise called NITI Aayog. India's farmes ought to move toward becoming re-appropriating focus points for worldwide grocery store chains, he stated, taking note of he anticipates a declaration on the strategy in the Feb. 1 spending plan.

"We have to streamline principle, give motivating forces and expel leaps in their manner," said Chand in a meeting in New Delhi. For any improvement in farmers' income, private corporate investments in farming ought to at any rate twofold from the present 2 percent of absolute yearly investments in agriculture, he said. Agriculture, which contributes 17 percent to the $2.3-trillion economy, has remained moderately immaculate by changes with development rates averaging underneath three percent over the same number of decades. Absence of innovation, wasteful markets and little landholdings have declined difficulties. About a quarter Indian farmers live underneath the official poverty line, while 52 percent of farming family units are obligated

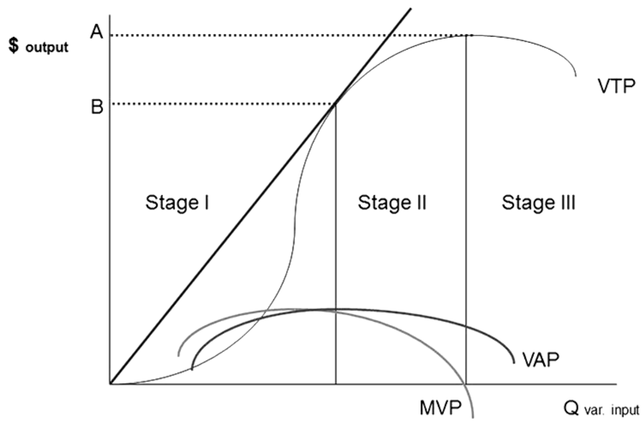
regardless of ensured costs for yield buys by the national government on at any rate three crops - wheat, rice and cotton. Farmers have for some time been requesting 50 percent benefits over the expense of production and waiver of their agricultural credits. Jagdish Thakkar, a representative in the Prime Minister's Office, didn't react to a call looking for input. Indian states right now permit contract farming just for specific crops. The national government has looked for public remarks for a model contract farming act revealed in December.

Higher investments by organizations including PepsiCo., Hindustan Unilever Ltd., ITC Ltd., which purchase from farmers in certain states, could help wages quicker when India is anticipated to extend at the slowest pace since Modi came to control in 2014. Total national output is relied upon to develop at 6.5 percent in the year through March, principally because of lackluster showing of agriculture and assembling. In interview with states, Chand said his research organization is pushing at another cost help plot. Under the proposed Market Assurance Scheme, states securing crops other than rice, wheat and cotton from farmers will be remunerated by the government for up to 40 percent of the misfortunes on obtainment cost, he said.

5.5 COST RELATIONSHIP AND PROFIT MAXIMIZATION

The subsequent stage in the psychological procedure is to change over the units of yield into dollar sums by increasing the measure of yield times the market cost of the yield. Tomahawks on the diagram are currently dollar sum and amount of factor information.

1. Price of total product = total physical product x price of the output VTP = TPP * Py
   The VTP curve illustrates the price of output at each level of factor input.



The production function also can be presented as the **relationship between the quantity of variable input and the value of output.**

2. Price of average product = average physical product x price of the output VAP = APP * Py = VTP/X
3. The VAP bend outlines the estimation of yield per unit of factor contribution at each degree of factor information.
4. Marginal worth product can be portrayed a few different ways: 1) negligible physical product x cost of yield; 2) estimation of extra yield coming about because of the utilization of an extra unit of factor info; and 3) measure of increase in the association's all out income because of utilizing one more unit of factor information. The two most basic elements are the cost of the yield (Py) and the measure of yield the extra factor info will create (MPPx)

$$MVP = MPPx * Py$$

$$= (VTP2 - VTP1)/(X2 - X1)$$

$$= (TPP2 - TPP1)/(X2 - X1) * Py$$

The MVP bend outlines the estimation of yield for each extra unit of factor contribution at each degree of factor information; it is the estimation of the yield that outcomes from utilizing one more unit of factor info. In Stage II, the estimation of the yield delivered by utilizing one more unit of factor information will diminish in light of the fact that the amount of extra yield (MPP) is declining in Stage II - as indicated by the law of lessening peripheral profitability. Minimal info cost (MIC) is the expense of utilizing an extra unit of factor information; repeated, it is the adjustment in all out expense because of utilizing extra units of factor information.

$$MIC = \text{cost of one unit of X} = (TC2 - TC1)/(X2 - X1)$$

TC = total cost;

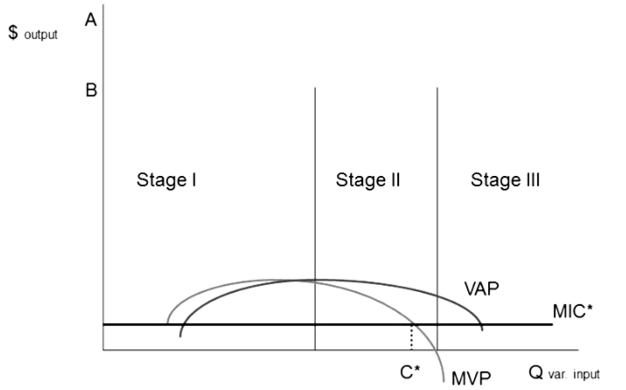
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The MIC will stay constant incomeing little heed to the amount of the factor information is utilized. This depends on the presumption that nobody business is huge enough to impact the market cost for the info incomeing little mind to the amount of the information the business needs to utilize.

Level of output maximizes profit

As increasingly factor information is utilized, the estimation of the product coming about because of the extra information is declining (MVP). At the point when the amount of factor info arrives at the level that the expense of the extra factor (MIC) surpasses the estimation of its extra yield (MVP), the director ought to choose to utilize no a greater amount of the factor contribution during this production period. Produce where the degree of yield has the estimation of last unit of yield equivalent to the expense of the extra factor information expected to create that last unit of yield (MIC = MVP). Organizations will keep on utilizing a more prominent amount of the factor contribution as long as the expense of the extra factor input (minimal info cost or MIC) is not exactly the extra income that the information will create (negligible worth product or MVP). Benefit isn't boosted where production is augmented on the grounds that production is expanded where MVP is $0. Likewise, MIC would need to be $0 (that is, free) to amplify benefit where production is augmented. In the event that there factor information has a cost, most extreme benefit is at some degree of production not exactly greatest production.

Note in any case, that this data does not uncover whether the business is gaining a benefit, that is, this data does not uncover whether all out expense is not exactly or more than all out income. Resulting areas examine how chiefs can investigate whether the business is acquiring a benefit.



Profit is maximized at the quantity of variable input (C*) where the cost of using one more unit of var. input (MIC) equals the value of the product produced by that last unit of var. input (MVP).

- ❖ MVP is the estimation of extra yield coming about because of the utilization of one more unit of factor information.
- ❖ MIC is the expense of utilizing one more unit of factor information.
- ❖ Profit is expanded at the degree of factor info where the MVP = MIC, that is, the place the estimation of the extra yield created by utilizing one more unit of factor information is equivalent to the expense of that last unit of factor information.

5.6 LET US SUM UP

Agriculture Capital is a supportability driven agriculture and food venture firm that at present oversees two investment reserves ("the Funds"). The Funds put resources into changeless cropland and synergistic midstream advantages for make a vertically incorporated venture that develops, packs and markets high-esteem produce. Through a proprietor administrator model, the Funds utilize a worth added way to sale with Farmand nourishment activities, concentrated on regenerative farm rehearses and the handling and clearance of that produce as a methods for improving returns. Their central goal at Agriculture Capital is to build up a regenerative food and agriculture framework that produces better nourishment at scale and conveys sound comes back to speculators while having any kind of effect in their networks.

5.7 UNIT-END EXERCISES

1. What is the important factor in the Agricultural Capital Formation?
2. Describe the public investment in the capital formation of Agricultural sector in India.

5.8 CHECK YOUR ANSWER HERE

1. Savings are significant for investment. In agriculture, there is much sparing. This can be seen from the way that business banks

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can assemble more reserve funds from agriculture. Such reserve funds are spent for investment purposes in enterprises in the towns. In view the significance of the agricultural area. The Govt. has endeavored at fortifying the area. The HYV program has been presented. The escalated Agricultural District Program, Multiple Cropping, Dry Framing and so on have additionally been presented. To help the little farmers numerous offices have been made. Co-usable development is reinforced to make rural projects powerful.

2. Profitability, Assured purchasing, and fare request in certain years, invigorated investment in wheat, rice, cotton, mentha, guar, a couple of heartbeats and sugarcane. Be that as it may, farmers are baffled by the high section boundaries to fluid and managed markets. In the event that they do enter, the interaction of market powers doesn't really empower reasonable play, trust and straightforwardness. There are not many policies to moderate the higher hazard in high-esteem cultivation crops. In this way, even little business farmers every now and again endure fundamentally on income from compensation work. As monetary markets illustrate, access to business sectors is inadequate. Markets require the 'noticeable hand' to secure little members with the goal that they have office. States should correspondingly create and safeguard agricultural markets that work for smallholders by decreasing exchange expenses and counterparty dangers, and raising price revelation, price straightforwardness and bartering power.

5.9 SUGGESTED READINGS

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UNIT -VI FARM MANAGEMENT

STRUCTURE

6.0 INTRODUCTION

Farm Management, settling on and executing of the choices engaged with sorting out and working a farm for most extreme production and benefit. Farm the board draws on agricultural economics at data on costs, markets, agricultural policy, and monetary foundations, for example, renting and credit. It likewise draws on plant and creature sciences for data on soils, seed, and compost, on control of weeds, bugs, and sickness, and on apportions and reproducing; on agricultural designing for data on farm structures, apparatus, water system, crop drying, seepage, and disintegration control frameworks; and on brain research and humanism for data on human conduct. In settling on his choices, a Farm administrator in this way incorporates data from the organic, physical, and sociologies.

6.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand the meaning of Farm Management in India.
2. Know about the importance of Farm Management.
3. Can gain knowledge on Agricultural Price Determination.

6.2 MEANING OF FARM MANAGEMENT

Our agricultural scene is a changing quickly since the mid-sixties when we encountered the 'Green Revolution'. It was trailed by the 'White Revolution', which got the surge of milk in the nation. Presently, we are on policy to 'Yellow Revolution' for example unrest in natural product production. A significant truth behind these unrests is the financial thought. Farmers have been receiving the new innovation in agriculture and related fields mostly on account of these developments income all the more all contrasted with their convention crops. Agriculture has turned out to be more market situated. The contemplations of expense of production, income and gainfulness are summing essentialness. In this way, the Agri-economics has come in. The Farm the executives is the

field firmly identified with agri-ecomnomics. There is no uncertainty that farmers embracing new innovation are very cognizant about the service of their homestead. Be that as it may, there is general lack of concern about the Farm Management among the farmers, Agri-researchers and the arrangement producers. Being a moderately youthful since, no much consideration is post to it. There might be some strong purposes behind this. In any case, with changing situation in agriculture, the requirement for directing farmers in the executives of their homesteads accepts essentialness. In any business recommendation, the executives need to assume a critical job. In different divisions of the economy, 'the board' has turned into a watchword. As of late, the disturbances giving preparing in 'the board' are expanding significantly. There is great investment for 'administrators' prepared in these foundations. Presently, the specialized people having designing and other professional foundation are turning towards MBA and partnered courses. Be that as it may, with uncommon special cases, there are no such Institutions for preparing people in farm the executives. These are establishment for managing farmers in this subject one reason for this might be that our farming is moderately a little scale farming and the dissipated one. But, looking to the creations that are occurring in agriculture part, there is requirement for directing the farmers in this financial perspective. The topic covers a few viewpoint, for example, basic leadership, farm arranging, resource arranging (land, work, capital), farm costing, farm bookkeeping, marketing, investigation of contextual analyses of fruitful farmers. The utilization of productivity measures to assess the venture is likewise a significant part of Farm the executives. In the ongoing years, the factual devices such a production work, straight writing computer programs are being utilized to get a thought regarding the resource. We in an endeavor and for getting an ideal arrangement for a given Farm considering the resources and the restrictions wherein it is being worked. Sooner rather than later the Farm the executives is probably going to expect move and move criticalness.

6.3 IMPORTANCE OF FARM MANAGEMENT

In India, the assembling and service area enterprises are consistently developing and advancing, requesting exceedingly gifted and concentrated experts. Existing conditions is to such an scope that in any field you can't find a respectable line of work without a graduate degree. Moreover, with the development of these sectors new creating which did not exist before are quick rising and getting to be suitable vocation alternatives. For any economy, service and assembling divisions are the points of development. On account of India in any case, while

these two parts are developing, agriculture is as yet the prevalent work division. This predominance by agriculture not just eases back our monetary development by confining supply of resources like land and HR and capital investment to the real divisions, yet the absence of 'farm the executives' makes it a non advancing calling with restricted benefits.

In India, because of a gigantic communist (and socialist) impact, individuals have sentimental thoughts about agriculture and an inalienable conviction that the deplorability of farmers is a direct result of government aloofness. A lot of poverty settlement is likewise in charge of the equivalent. Different associations of farmers continue censuring the Government for having a low least help cost and for not giving enough sponsorships, and so on. The Maoist emergency is additionally to a great scope because of expected administrative unresponsiveness. The issue does not lie in the methodology of the service, it is our less (counting farmers') comprehension of agriculture. It is viewed as something not identified with business in at any rate, secure from the laws of rivalry and considered the service's own philanthropy child.

In many nations, especially the European Union nations, farm appropriations are prohibited and agriculture additionally falls under their Competitions Act which implies that the service backing to agriculture is viewed as uncalled for, deserving of EU law and farming is viewed as an innovative endeavor. In India, be that as it may, the ideas of market economy are viewed as totally in compatible with farming. Many farm zones have lost soil ripeness and are not economically practical for farming, yet, individuals are associated with inefficient agriculture because of no appropriate course and less Farmchoices. Not exclusively are endeavors not being made to move to the auxiliary or tertiary area, yet additionally all endeavors by the Government toward this path are by and large fiercely stood up to. Moreover, during the ongoing stockpiling emergency is Punjab what we missed was the way that notwithstanding having an abundance of wheat grain produce, farmers in the district adhered to a similar yield, with less or no aim to take to new crops.

The problem is that the concept of free market and management are not practiced in agriculture. Even though there are panchayats to encourage self governance, these panchayats are full of villagers who are more than happy to put pressure on the government so as to be able to live in their bubble of complacency rather than changing their practices to something more profitable. There is a dire need for farm managers to make agriculture an entrepreneurial venture that investments both rural and urban alike.

The issue is that the idea of free market and the executives are not rehearsed in farming. Despite the fact that there are panchayats to energize self service, these panchayats are brimming with townspeople who are glad to put weight on the Government to have the option to live in their air pocket of lack of concern as opposed to changing their

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practices to something creatively productive. There is a desperate requirement for farm chiefs to make farming an enterprising endeavor that investments both rural and urban alike.

6.4 AGRICULTURAL PRICE DETERMINATION IN INDIA OR AGRICULTURAL PRICE POLICY

In this way the agricultural price strategy which was presented soon after autonomy caused a trade off with the circumstance and pursued a factor arrangement of dynamic to decontrol in 1947 and after that a halfway control in 1955. At that point in 1959, the Government presented the state exchanging foodgrains especially in rice and wheat. After that in 1964, the Government presented food zones for forcing confinement on the development of foodgrains starting with one zone then onto the next so as to authorize strength in agricultural costs. In 1965, the Agricultural Price Commission was set up which reported the base help costs and acquisition costs in the advancementive years so as to ensure least costs to the makers and for structure up cushion stocks to keep up the public dissemination framework.

The base help cost for wheat which was fixed at Rs 37.50 per quintal in 1964-65 bit by bit raised to Rs 50 for every quintal in 1965-66 and after that to Rs 350 for every quintal in 1993-94. The obtainment cost for paddy per quintal was likewise step by step brought from Rs 77 up in 1977-78 to Rs 230 out of 1991-92. The acquisition cost for coarse grains was likewise raised from Rs 48.29 pre quintal in 1965-66 to Rs 205 of every 1991-92. While fixing these acquirement costs, the enormous farmers' entryway has assumed a significant job in its basic leadership. Again so as to meet the base needs of the more fragile areas of the general public, the proportioning framework through public circulation framework was presented in India and in like manner the all out number of reasonable cost shops has likewise expanded from 2.39 lakh in 1979 to 3.54 lakh in 1980. This public dissemination framework has been taking care of around 19 million tons of foodgrains.

NAFED is likewise a significant office which delegates state offices for undertaking Price Support Scheme (PSS) tasks. The misfortunes, assuming any, brought about by focal organizations on adopted PSS tasks are repaid up to 15 percent by the Central Government. Aside from this, service additionally gives working funding to the focal organizations for undertaking PSS activities. Additionally, the service likewise actualizes Market Intervention Scheme (MIS) for green and agricultural products, particularly transient in nature and not secured under the PSS which encourages the farmer to get gainful costs for their produce. The MIS is dependent upon the premise of explicit

solicitation of a State or Union Territory (UT) government which is simply prepared to hold up under 50 percent (25 percent in regard of north-eastern states), assuming any, caused on its usage. Be that as it may, the misfortune in such case is confined up to 25 percent of all out acquisition esteem. Be that as it may, the benefit earned, if any in executing the MIS is held by the getting offices. In addition, so as to guarantee a base profitable cost to the farmers some different advances were additionally trailed by the service which included state exchanging, developing of support stocks, nationalization of discount exchange wheat and rice, acquisition from wholesalers, import of foodgrains and so forth.

Components prompting ascent of costs of agricultural products for the most part incorporate pressure of supply-request relationship, development of production cost and flow cost, and theory of Refugee Capital (Hot Money). Factors prompting low cost and troublesome offers of agricultural products predominantly incorporate asymmetry of supply-request data, absence of hazard the board devices at costs of agricultural products and decentralized and little scaled task of farmers. Based on these components, this paper presents following countermeasures and recommendations at settling costs of agricultural products: right off the bat, fabricating long-impact instrument for production and offers of agricultural products; also, extend the production and increase supply of agricultural products; thirdly, control the rising scope of production cost for agricultural products; fourthly, upgrade association level of farmers; fifthly, advance development and improvement of hazard the executives devices at costs of agricultural products.

Causes for fluctuations in agricultural prices

1. Increase in Money Supply: When the Govt spend immense sums on formative plans, more cash is siphoned into the economy. It prompts spurt popular for foodgrains, when food supply can't be expanded all of a sudden, nourishment costs shoot up.
2. Seasonal supply of products: Agriculture in India relies upon rainstorm and seasons. Thusly agricultural costs vacillate.
3. Inadequate Marketable Surplus: Fluctuations emerge because of low degree of attractive overflow. This is because of low efficiency and high flourishing to devour.
4. Increasing Population: Mounting populace prompts irregular investment for nourishment. At the point when production misses the mark, costs will shoot up.
5. Urbanization: Rapid industrialization and urbanization prompted bigger investment for food. In any case, when agriculture was dismissed, constrained supply of foodgranis prompted ascend in costs.

6. Low income individuals request more food: There has been an adjustment in the example of utilization of nourishment. Individuals with low income are requesting more food.
7. Hoarding: Speculators deliberately crowd foodgrains to make colossal benefits at the season of shortage. It pushes costs upwords.
8. Export of agricultural products: Internal investment is disregarded. Agricultural products are traded. This has caused ascend in costs.
9. Other reasons: Low degree of stock, ill-advised appropriation, incre haase in the typical cost for basic products, unevenness sought after and supply have prompted vacillations in agricultural costs.

Impact of fluctuations

1. Fall in the income of farmers: Excessive fall in agricultural costs is perilous as it prompts an incredible fall in the income of the Farmers. They don't get sufficient returns for their hard work.
2. Fall in the supply of agricultural products: A fall in the agricultural costs means trouble for a lion's share of the individuals. This prompts huge decrease in Government income. Again farmers will lose impetuses to build production.
3. Fall in the investment for industrial products: Fall in the costs of agricultural produce will decrease the obtaining intensity of rural individuals. This will prompt a fall sought after for industrial products.
4. High Investments: High ventures without taking satisfactory measures to expand food supply prompts bending of price structure.
5. Other impacts: Marginal and little farmers venture into the red. They are consented to sell portions of their properties.

These both rising and falling costs make numerous issues for the economy. Henceforth it is basic to find a way to settle the costs of agricultural products.

Price Stabilization

Price adjustment isn't a similar thing as holding the price line. It is an a lot more extensive idea. It goes for counteractive action of savage vacillations in costs. It avoids fall or ascend in costs. Peruse price adjustment would include downsizing of the statures of costs just as an end of their obligations. Adjustment of costs would not make an

awkward maker to end up rich. It ought to likewise forestall the ruin of sensibly productive farmers. Requirement at adjustment of agricultural costs. Except if the makers get reasonable cash for their attractive overflow, no measure of production can raise the way of life of the majority. Powerful assurance of a base cost will present a component of soundness in agriculture as well as will advance steadiness in different circles of life.

The Price Sub-board of trustees on Agricultural costs demonstrated the requirement at adjustment of agricultural costs on the accompanying grounds.

1. Prices ought to be ensured so as to verify stable agricultural wages and to verify equality among agriculture and modern earnings.
2. To defend the investments of shoppers, the costs ought to be kept from ascending past a greatest.
3. The reasonable cost should empower a maker to keep up himself and his family at a sensible way of life.
4. The obsession of least cost infers that the Government would buy all provisions offered at that cost.
5. When the costs move over a recommended greatest farthest point. The Government would acquire its own stock and sell at the recommended costs.

6.5 LET US SUM UP

The agricultural price strategy in India has prevailing with regards to setting up sureness and trust in regard of the costs of agricultural wares through the obsession of least help costs by Agricultural Prices Commission (later on renamed as Commission at Agricultural Costs and Costs). Be that as it may, because of the varieties in the level of authorization of obtainment in various years, some level of vulnerability and shakiness in costs were experienced by the Indian farmers. Again raising the base help costs and acquirement costs offered motivation to the makers to build their production yet these advantages were for the most part confined to enormous farmers. Besides, the public circulation framework in India is additionally exposed to different confinements, for example, its limited activity in wheat and rice just, deficient inclusion of country territories, insufficient inclusion of the individuals lying beneath the poverty line and its an excessive amount of cost because of absence of focusing on. As contended by a few market analysts, persistent increase in the acquisition costs has come about a spurt to inflationary weights in the economy. This expansion in the cost of foodgrains has likewise brought about immense hardships to the rural poor comprising of peripheral farmers and landless workers who establish the greater part of country populace.

In addition, the fixing of uniform price tag for the nation based on expense of production of tremendous cost states by the Commission at Agricultural Costs and Costs has profited the created states having low normal expense of production, for example, Punjab, Haryana and so forth. Subsequently, the policy had an inclination for the rich states at the expense of buyers by and large.

6.6 UNIT-END EXERCISES

1. What is the meaning of Farm Management?
2. Explain price stability in short.

6.7 CHECK YOUR ANSWER HERE

1. Farm service draws on agricultural economics at data on costs, markets, agricultural policy, and monetary organizations, for example, renting and credit. It additionally draws on plant and creature sciences for data on soils, seed, and compost, on control of weeds, bugs, and infection, and on apportions and reproducing; on agricultural designing for data on Farmstructures, apparatus, water system, crop drying, seepage, and disintegration control frameworks; and on brain science and social science for data on human conduct.
2. Price adjustment isn't a similar thing as holding the price line. It is an a lot more extensive idea. It goes for anticipation of savage variances in costs. It avoids fall or ascend in costs. Peruse price adjustment would include downsizing of the statures of costs just as a disposal of their obligations. Adjustment of costs would not make an uncouth maker to wind up rich. It ought to likewise anticipate the ruin of sensibly productive farmers. Requirement at adjustment of agricultural costs.

6.8 SUGGESTED READINGS

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UNIT -VII CROP INSURANCE

STRUCTURE

7.0 INTRODUCTION

Horticultural production and farm earnings in India are much of the time influenced by cataclysmic events, for example, dry spell, floods, violent wind, storm, avalanche, seismic tremor and so on. Defenselessness of agriculture to these calamities is intensified by the flare-up of plagues and man-made fiascos, for example, fire, clearance of misleading seeds, manures and pesticides, price crashes, and so on. Every one of these occasions seriously influence farmers through misfortune underway and farm income, and are foreign the ability to control of farmers. With developing commercialization of agriculture, the scope of misfortune because of troublesome outcomes is expanding. As of late, instruments like contract farming and prospects exchanging have been set up which are relied upon to give some insurance against price variances straightforwardly or by implication. Be that as it may, rural insurance is viewed as a significant system to adequately deliver the dangers to yield and income coming about because of different characteristic and artificial occasions.

7.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about crop insurance.
2. Know about the importance of crop insurance.
3. Can gain knowledge on the subsidies, PDS and Food Security.

7.2 MEANING OF CROP INSURANCE

Crop insurance is acquired by agriculture makers, and financed by the national government, to ensure against either the loss of their yields because of cataclysmic events, for example, hail, dry season, and

floods, or the loss of income because of decreases in the costs of rural products. The two general classes of crop insurance are called crop-yield insurance and yield income insurance. By and large, the national government sponsors 62 percent of the premium. In 2014, crop insurance policies secured 294 million sections of land. Real yields are insurable in many provinces where they are developed, and roughly 83% of U.S. crop grounds is safeguarded under the government crop insurance program. Four crops—corn, cotton, soybeans, and wheat—regularly represent over 70% of complete selected sections of land. For these real yields, an enormous portion of plantings is secured by crop insurance. In 2014, the sector of all out corn grounds secured by government crop insurance was 87%; cotton, 96%; soybeans, 88%; and wheat, 84%.

7.3 THE IMPORTANCE OF CROP INSURANCE

70% of the worldwide land use is for agriculture, rangeland and ranger service. In Africa alone, agriculture accounts for 70 percent of all day work, 33 percent of absolute GDP, and 40 percent of all out fare income. Somewhere in the range of 2003 and 2013, there were 78 calamities brought about by a wide range of characteristic dangers, including atmosphere related occasions. This number has multiplied since the 1980s. In a range of ten years, it has influenced near 1.9 billion individuals and caused over USD 494 billion in evaluated harm. The all out financial harm is assessed to be $1.5 trillion. Out of this aggregate, near 25 percent of the monetary effects is borne by the yield, animals, fisheries and ranger service area. The flood in environmental change-related calamities postures developing danger to nourishment security.

"Little scale farmers, fisherfolk, pastoralists and foresters – from Myanmar to Guatemala and from Vanuatu to Malawi – have seen their occupations dissolved or deleted by violent winds, dry spells, floods and quakes," said FAO Director-General José Graziano da Silva, 2015. As per a report from the Food and Agricultural Organization of United Nations(FAO), agriculture is the absolute most influenced area by dry spells, retaining overall around 84 percent of all the financial effect. This circumstance is relied upon to exacerbate except if powerful measures are taken to secure the agriculture sector. With the expansion in populace, there is massive strain to expand nourishment production, help security and ensure farmes.

Some of the Impact of Natural Disaster on Agriculture

1. Loss of perennial crops such as garlic, banana and rhubarb
2. Inability to use the land until water recedes in the case of floods
3. Permanent increase in salinity making the land unsuitable for production
4. Decreased production leading to lower farmers income
5. Increase in unemployment threatening rural livelihood

At the point when Agriculture is synonymous to debacles and dangers foreign our ability to control, it is important to take prudent steps to control harm looked by farmers. A yield insurance plan aids the adjustment of crop production and lessens the negative effect it has on the lives of the farmers. Thinking about the present situation, crop insurance has turned into a need for rural related issues. Every year, there are new innovations imagined to enable farmers to get more produce from their investments. Since the new investments are dangerous, insurance bundles help the farmer to attempt new developments. The insurance organizations enable farmers to get insurance covers for the new innovations with the end goal that on the off chance that they come up short, farmers won't get misfortunes as the insurance organization remunerates them.

Advantages of Crop Insurance

Farmers who take crop insurance shield their crop from unexpected misfortunes. Taking into account that greater part of the farmers employment is reliant on the quality and amount of the yield they produce, crop insurance helps in battling destitution. The upsides of crop insurance are,

Stability in Income: It ensures the farmers against misfortunes brought about by crop disappointment. It acts like an instrument that enables farmers to sale with their yield and price dangers.

1. Minimal Debts: Farmers can reimburse their credits notwithstanding during the season of yield disappointment with the help of the correct insurance accomplice.
2. Technological Development: Insurance organizations work alongside Agri stages who use IOT to upgrade agriculture rehearses and decrease farmers misfortunes. This causes farmers to comprehend most recent innovative creation and improve their yield production.
3. Yield Protection: Crop Insurance secures farmers against production misfortune for yields. It additionally offers preventive planting and replant security.

4. Provides Awareness: Insurance organizations give mindfulness crusades to enable farmers to comprehend the impact of common cataclysms and furthermore ensure their homesteads.

While a cataclysmic event is erratic, farmers can utilize conjecture strategy to get atmosphere and climate change to ensure their yields. In this way, one of the most significant advantage of purchasing agriculture insurance is that farmers get genuine feelings of serenity. Since significant effect of the cataclysmic events is on poor farmers with constrained methods in developing nations, it is important to utilize information, innovation and monetary services to comprehend atmosphere related difficulties.

7.4 INSURANCE SCHEMES AVAILABLE TO FARMERS IN INDIA

The Central Government figured the Farm Income Insurance Scheme (FIIS) during 2003-04. The two basic sectors of a farmer's income are yield and cost. FIIS focused on these two sectors through a solitary insurance policy with the goal that the safeguarded farmer could get an ensured income.

Features

- Determination of income level (Guaranteed Income) utilizing past yield and MSP (Reference cost)
- Fixation of reimbursement level and premium dependent on the hazard introduction
- Assessment of the reimbursement payments dependent on genuine income, for example the contrast between the result of real yield and market cost, and Guaranteed income

NATIONAL AGRICULTURE INSURANCE SCHEME

The Government of India explored different avenues regarding a perception crop insurance plot which fizzled. The Government at that point presented in 1999-2000, another plan titled "National Agricultural Insurance Scheme" (NAIS) or "Rashtriya Krishi Bima Yojana" (RKBY). NAIS conceives inclusion of all food crops (grains and heartbeats), oilseeds, green and business crops. It covers all farmers, both loanees and non-loanees, under the plan. The fundamental highlights of the plan are as per the following:

- The plan covers all farmers including those developing business and green crops.

- There is no limitation on the whole protected and all crops including coarse oats, heartbeats and oilseeds are secured. Moreover, three money crops-sugarcane, cotton and. potato – have additionally been brought under the plan.
- The plan is accessible to non-loanee farmers on a discretionary premise, however is mandatory for loanee farmers. It covers all crops for which yield information is accessible incomeing little mind to the size of the holding. The plan is being executed by the Agricultural Insurance Corporation.

WEATHER-BASED CROP INSURANCE SCHEME

The WBCIS has been executed in the chosen regions of Karnataka on a pilot premise. It gives insurance security to farmers against unfriendly occurrence, for example, shortage and abundance precipitation, which effect antagonistically the yield assurance. Highlights:

- Among different climate parameters like downpour, temperature, wind, daylight, and so forth precipitation is a significant parameter with regards to Indian agriculture especially for the Kharif season.
- In the Rabi season, climate parameters like unseasonal downpour, temperature, ice, dampness, and so forth are a portion of the significant parameters which influence crops unfavorably.
- The plan is pertinent to significant oats, millets, heartbeats, oilseeds and business crops.
- All farmers including tenant farmers and sharecroppers developing informed yields in the advised territories are qualified for inclusion.
- The plan is obligatory for loanee farmers and deliberate for non-loanee farmers.
- NAIS won't be executed for loanee farmers in territories where WBCIS is actualized. In any case, loanee farmers may pick among NAIS and WBCIS, and furthermore the insurance organization.
- Maximum Sum Insured (SI) is comprehensively comparable to cost of development. Notwithstanding, non-loanee farmers have adaptability to guarantee littler sums inside greatest, limit, however at least 50 percent of total safeguarded.
- Actuarial rates would be worked out however premium really incomeable by farmers for food and oilseeds crops would be at standard with existing rates extending between 2.5 percent to 3.5 percent under NAIS in the Kharif season.

- The contrast between the Actuarial Rates and Rates Charged from farmers is being financed on section premise and is shared by the Central and State Govt, on 50: 50 premise.

7.5 AGRICULTURAL SUBSIDY

A rural sponsorship (additionally called a rural motivating force) is an service motivator paid to agriculturees, horticultural associations and farmes to enhance their income, sale with the supply of agrarian wares, and impact the expense and supply of such products. Instances of such products include: wheat, feed grains (grain utilized as grub, for example, maize or corn, sorghum, grain and oats), cotton, milk, rice, peanuts, sugar, tobacco, oilseeds, for example, soybeans and meat products, for example, hamburger, pork, and sheep and lamb. Various types of rural subsidies gave to farmers in India are:

INPUT SUBSIDIES

Appropriations can be conceded through circulation of contributions at costs that are not exactly the standard market cost for these sources of info. The scope of appropriations will thusly be equivalent to the contrast between the two costs for per unit of info conveyed. Normally a few assortments of sponsorships can be named in this classification.

(a) Fertilizer Subsidy: Distribution of shabby synthetic or non-substance manures among the farmers. It adds up to the distinction between price paid to maker of manure (local or remote) and cost, got from farmers. This subsidy guarantees:

1. Cheap inputs to farmers,
2. reasonable returns to manufacturer,
3. stability in fertiliser prices, and
4. Availability of fertilisers to farmers.

Now and again this sort of sponsorships are conceded through lifting the tax on the import of manures, which generally would have been forced.

(b) Irrigation Subsidy: Subsidies to the farmers which the service bears by virtue of giving appropriate water system offices. Water system sponsorship is the contrast among working and upkeep cost of water system foundation in the state and water system charges recuperated from farmers. This may work through arrangements of public products,

for example, channels, dams which the service builds and charges low costs or no costs at all for their utilization from the farmers. It might likewise be through modest private water system hardware, for example, siphon sets.

(c) Power Subsidy: The power appropriations infer that the service charges low rates for the power provided to the farmers. Power is principally utilized by the farmers for water system purposes. It is the distinction between the expense of producing and appropriating power to farmers and cost got from farmers. The State Electricity Boards (SEBs) either create the power themselves or buy it from different makers, for example, NTPC and different SEBs. Power appropriation "goes about as a motivating force to farmers to put resources into siphon sets, bore-wells, and so forth.

(d) Seed Subsidies: High yielding seeds can be given by the service at low costs. The innovative work exercises expected to deliver such profitable seeds are likewise attempted by the service, the use on these is a kind of sponsorship conceded to the farmers.

(e) Credit Subsidy: It is the contrast between intrigue charged from farmers, and genuine expense of giving credit, in addition to different costs, for example, discounts awful advances. Accessibility of credit is a noteworthy issue for poor farmers. They are destitute and can't policy the credit market since they don't have the guarantee required for advances. To complete production exercises they policy the neighborhood cash banks.

Exploiting the powerlessness of the poor farmers the moneylenders charge extremely high paces of premium. Commonly even the farmers who have some security can't benefit advances since banking organizations are generally urban based and numerous multiple times they don't enjoy agriculture credit tasks, which is viewed as unsafe. To handle these issues the service can give:

- ❖ More banking operations in rural areas-which will advance agricultural loans, and
- ❖ The investment rates can be maintained low through subsidisation schemes, and
- ❖ The terms of credit (such as collateral requirements) can be relaxed for the poor.

PRICE SUBSIDY

It is the contrast between the cost of food grains at which FCI obtains food grains from farmers, and the cost at which PCI sells either to saleers or to the PDS. The market cost might be low to the point that the

farmers should bear misfortunes as opposed to making benefits. In such a case the Government may guarantee to purchase the crop from the farmers at a price which is higher than the market cost. The contrast between the two costs is the per unit sponsorship conceded to the farmers by the service. The cost at which the service purchases crops from the farmers is known as the obtainment cost. Such acquirement by the service likewise has a long run effect. It urges the farmers to develop crops which are consistently acquired.

INFRASTRUCTURAL SUBSIDY

Private endeavors in numerous zones don't demonstrate to be adequate to improve agrarian production. Great roads, storerooms, control, data about the market, transportation to the ports, and so on are fundamental for completing production and sale activities. These offices are in the space of public merchandise, the expenses of which are colossal and whose advantages collect to every one of the cultivators in a territory. No individual farmer will policy to give these offices due to their cumbersomeness and intrinsic issues identified with income accumulations (nobody can be avoided from its advantage on the ground of non-payment). Thusly the service assumes the liability of giving these and given the state of Indian farmers a lower cost can be charged from the more unfortunate farmers.

EXPORT SUBSIDIES

This sort of subsidy isn't unique in relation to other people. Be that as it may, its motivation is unique. At the point when a farmer or exporter sells rural products in remote market, he gains cash for himself, just as foreign trade for the nation. In this manner, agrarian fares are commonly supported as long as these don't hurt the local economy. Dies down gave to empower fares are referd as fare appropriations.

7.6 PUBLIC DISTRIBUTION SYSTEM IN INDIA

The Indian food security framework was set up by the Government of India under the Ministry of Consumer Affairs, Food and Public Distribution to disseminate nourishment and non-nourishment things to India's poor at sponsored rates. This plan was first begun in February 1944, during the Second World War, and was propelled in the present structure in June 1947. Significant wares dispersed incorporate

staple food grains, for example, wheat, rice, sugar and fundamental energizes like lamp fuel, through a system of reasonable price shops (otherwise called apportion shops) built up in a few states the nation over. Nourishment Corporation of India, a Government-claimed partnership, gets and keeps up the PDS (public distribution framework). In inclusion and public consumption, it is viewed as the most significant food security organize. Notwithstanding, the food grains provided by the proportion shops are insufficient to meet the utilization needs of poor people or are of sub-par quality. The normal degree of utilization of PDS seeds in India is just 1 kg for every individual every month. The PDS has been scrutinized for its urban predisposition and its inability to serve the more unfortunate areas of the populace adequately. The focused on PDS is expensive and offers ascend to much debasement during the time spent removing the poor from the individuals who are less penniless. Today, India has the biggest load of grain on the planet other than China, the service spends Rs. 750 billion ($13.6 billion) every year, right around 1 percent of GDP, yet 21% stay undernourished. Distribution of food grains to destitute individuals all through the nation is overseen by state governments. Starting at 2011 there were 505,879 reasonable price shops (FPS) crosswise over India.

The focal and state governments share the obligation of managing the PDS. While the focal government is in charge of obtainment, stockpiling, transportation, and mass designation of food grains, state governments hold the obligation regarding circulating the equivalent to the shoppers through the built up system of reasonable price shops (FPSs). State governments are additionally in charge of operational duties including assignment and recognizable proof of families beneath the destitution line, issue of proportion cards, and supervision and observing the working of FPSs. Under the PDS conspire, every family beneath the destitution line is qualified for 35 kg of rice or wheat consistently, while a family over the poverty line is qualified for 15 kg of foodgrain on a month to month premise. A beneath destitution line card holder ought to be given 35 kg of food grain and the card holder over the poverty line ought to be given 15 kg of food grain according to the standards of PDS. Be that as it may, there are worries about the proficiency of the conveyance procedure.

FAIR PRICE SHOPS

An public distribution shop, otherwise called reasonable price shop (FPS), is a piece of India's public framework set up by the Government of India which disseminates proportions at a sponsored cost to poor people. Locally these are known as apportion shops and public conveyance shops, and essentially sell wheat, rice and sugar at a price lower than the market price called Issue Price. Other fundamental

products may likewise be sold. To purchase things one must have a proportion card. These shops are worked all through the nation by joint help of focal and state government. The things from these shops are a lot less expensive however are of normal quality. Proportion shops are currently present in many territories, towns and urban communities. India has 478,000 shops, establishing the biggest appropriation organize on the planet.

The introduction of proportioning in India goes back to the 1940s Bengal starvation. This proportioning framework was resuscitated in the wake of intense food lack during the mid 1960s, before the Green Revolution. It includes two sorts, RPDS and TPDS. The public circulation arrangement of India isn't without its imperfections. With an inclusion of around 40 million beneath poverty line families, a survey found the accompanying auxiliary inadequacies and aggravations:

- Growing cases of the buyers accepting mediocre quality food grains in proportion shops.
- Rogue vendors swap great supplies got from the Food Corporation of India (FCI) with second rate stock and sell the great quality FCI stock to private businesspeople.
- Illicit reasonable price retailers have been found to make enormous number of fake cards to sell food grains in the public market.
- Many FPS vendors resort to negligence, illicit redirections of products, holding and dark marketing because of the base compensation gotten by them.
- Numerous acts of neglect make sheltered and nutritious nourishment blocked off and un-moderate to numerous poor along these lines bringing about their food frailty.
- Identification of families to be meant status and conveyance to allowed PDS services has been exceptionally sporadic and differing in different states. The ongoing improvement of Aadhar UIDAI cards has responded to the call of taking care of the issue of recognizable proof and appropriation of PDs benefits alongside Direct Cash Transfers.
- Regional allotment and inclusion of FPS are inadmissible and the focus target of price adjustment of fundamental wares has not met.
- There is no set criteria regarding which families are above or beneath the destitution line. This vagueness gives monstrous

extension for defilement and aftermaths in PDS frameworks since some who are intended to profit are not ready to.

A few plans have increased the quantity of individuals helped by PDS, however the number is very low. Poor supervision of FPS and absence of responsibility have prodded go betweens who expend a decent scope of the stock implied for poor people. There is additionally no clearness with respect to which families ought to be incorporated into the underneath the poverty line rundown and which are most certainly not. This outcomes in the truly poor being barred while the ineligible get a few cards. Mindfulness about the nearness of the PDS and FPS to destitution stricken social orders, to be specific the country poor has been bleak.

The stock allocated to a solitary family can't be purchased in portions. This is a conclusive obstruction to the proficient working and generally speaking accomplishment of PDS in India. Numerous families underneath the poverty line are not ready to obtain proportion cards either in light of the fact that they are regular vagrant laborers or on the grounds that they live in unapproved states. A great sale of families likewise contract their proportion cards for cash. Absence of lucidity in the arranging and organizing of social wellbeing and security programs in India has brought about the making of various cards for poor people. Constrained data about the general utilization of cards has disheartened families underneath the destitution line from enlisting for new cards and expanded unlawful production of cards by such families to guarantee most extreme advantage for the relatives. To improve the present arrangement of the PDS, the accompanying proposals are outfitted for:

- Vigilance squad ought to be reinforced to distinguish defilement, which is an additional consumption for citizens.
- Personnel responsible for the office ought to be picked locally.
- Margin of benefit ought to be expanded for genuine business, in which case the market framework is increasingly able at any rate.
- F.C.I. what's more, other noticeable offices ought to give quality food grains to appropriation, which is a difficult task for an office that has no genuine motivating force to do as such.
- Frequent checks and attacks ought to be directed to take out false and copy cards, which is again an additional use and not idiot proof.
- The Civil Supplies Corporation should public all the more reasonable price shops in rural zones.
- The reasonable price sellers only from time to time show rate outline and amount accessible in the square loads up before the shop. This ought to be authorized.

- In total, just about 42% of sponsored grains issued by the focal pool arrive at the objective gathering, as indicated by a Planning Commission study discharged in March 2008.

Nourishment stamps given to the penniless and to the oppressed by issue of coupons, vouchers, electronic card move and so forth they can buy wares at any shop or outlet. The state government would then income back the staple shops for the stamps, said the fund serve in his financial limit. Be that as it may, the United Advancementive collusion, which came to control in 2004, settled on a typical least program (CMP) and on the motivation was food and nourishment security. Under that the service had plans to reinforce the nourishment security program DS. Be that as it may, fund serve Arun Jaitley in his spending discourse went in opposition to the thought proposed in the CMP and proposed the possibility of the nourishment stamp plot. He has proposed to attempt the plan in few locale of India to see its practicality. In the CMP the Government had suggested that on the off chance that it is suitable it would universalise the PDS; if food stamps are presented it would be a focused on public circulation framework. A gathering of around 40 market analysts have advised the NAC headed by Sonia Gandhi against the nourishment security bill as it would put an extra weight on the exchequer. They rather have encouraged to feel free to explore different avenues regarding nourishment stamps and other elective techniques and called attention to the imperfections in PDS. This arrangement of financial experts hail from foundations like Delhi School of Economics, Indian Statistical Institute, Jawaharlal Nehru University, Indira Gandhi Institute of Development Research, Focus for Development Studies, Harvard, MIT, Columbia, Princeton, London School of Economics, University of British Columbia, University of California and University of Warwick. In a milestone judgment, Delhi High Court has decided that reasonable price shops can't be distributed to a beneath destitution line card holder.

Operation Black

Aaj Tak news channel on 14 October 2013 played out a sting task on PDS named Operation Black. It indicated how the dissemination compasses to factories rather than reasonable price shops. All the documentation by means of computerisation is spotless. NDTV completed a show which archived how the Government of Chhattisgarh's nourishment division figured out how to fix its wrecked framework with the goal that the redirection of grain descended from about half in 2004-5 to about 10% in 2009-10. Research on the PDS proposes (as these two

projects appear) that the circumstance fluctuates a considerable amount the nation over.

DISTRIBUTION OF FOOD STAMPS

Opportunities

- It will diminish India's interdependent on cushion stock for price adjustment and thusly lessen the expense.
- It gives motivation must to deregulate the household market and along these lines will prompt private business people.
- There is a tremendous need to create proper marketing framework and establishments to manage exchange agriculture wares.

Proper policy changes are an absolute necessity, for example, in the post WTO period the universal costs of wheat and rice went to their least levels. Be that as it may, in India because of high MSP's the costs were moderately high. In this manner accordingly bringing in was less expensive than purchasing from the local market. Therefore, the service required half levy on wheat and 80% percent tax on rice which further brought about one of the shocking occurrences in the Indian history that was aggregation of cushion stocks which were sent out which, by chance, returned available to be purchased at high MSP's for example in 2002-03, the Government offered 1.6 million tons to exporters yet in all actuality fares were just 0.682 million tons.

The Government may need to set up a total framework for the equivalent or would need to put this obligation on mail station, banks or such different organizations. In this procedure there could be spillages which involve concern. There would likewise be a weight which would come on the poor class who needs to profit by the equivalent of proceeding to gather the nourishment stamps.

7.7 FOOD SECURITY IN INDIA

Food security involves guaranteeing sufficient nourishment supply to individuals, particularly the individuals who are denied of primary food. Nourishment security has been a noteworthy worry in India. As per UN-India, there are almost 195 million undernourished individuals in India, which is a fourth of the world's craving load. Likewise generally 43% kids in India are incessantly undernourished. India positions 74 out of 113 noteworthy nations regarding food security list. Despite the fact that the accessible wholesome standard is 100% of the prerequisite, India falls a long ways behind regarding quality protein consumption at 20% which should be handled by making accessible protein rich food products, for example, eggs, meat, fish, chicken, and so on at moderate costs. So as to give the Right to nourishment to each native of the nation, the Parliament of India, sanctioned an enactment in

2013 known as the National Food Security Act, 2013. Additionally called as the Right to Food Act, this Act looks to give financed food grains to around 66% of India's 1.33 billion populace. It was marked into law on 12 September 2013, retroactive to 5 July 2013.

SCHEMES BY GOVERNMENT

Central Initiatives

The National Food Security Act, 2013 (NFSA 2013) changes over into legitimate privileges for existing nourishment security projects of the Government of India. It incorporates the Midday Meal Scheme, Integrated Child Development Services conspire and the Public Distribution System. In 2017-18, over Rs 1500 billion (7.6% of the service's absolute use) have been allotted to give nourishment subsidies under the Targeted Public Distribution System (TPDS). The NFSA 2013 additionally perceives maternity qualifications. Pregnant ladies, lactating moms, and certain classifications of kids are qualified for day by day free grains.

State Initiatives

Government of Tamil Nadu has propelled 'Amma Unavagam' (Mother's flask), or all the more normally known as Amma bottle. The beginning of this program could be followed to the plan proposed by Nimbkar Agricultural Research Institute in 2012. The State of UP in 2013 passed a nourishment bill. Food that will be squandered from gatherings will be saved and conveyed to poor and destitute individuals.

The Chhattisgarh Food Security Act, 2012 law was authorized by the Chhattisgarh government. It was passed on 21 December 2012, by the State Assembly unopposed to guarantee "access to sufficient amount of nourishment and different prerequisites of good food to the individuals of the State, at moderate costs, consistently to carry on with a real existence of respect.

In the nation of India, nourishment accessibility isn't so strong. Their populace right presently is 1.3 billion and by 2030, it is evaluated that their populace will increase to 1.5 billion. The test to deliver increasingly more for the developing populace is ending up creatively hard for a nation of its size and financial development. Since the land in India is a contracting resource for agriculture, the production rate for agriculture should be higher per unit of land and water system water. Over 60% of the Indian populace rely upon the agriculture for their day

by day suppers. India delivers around 100 million tons of rice each year. To get to food in India can be considered as not as simple as Australia. It is extremely difficult to get hands on crisp products of the soil. While there may be sufficient food for the entire populace of India, numerous families and particularly youngsters in India don't policy nourishment in light of monetary issues. Subsequently, this is the reason for many malnourished youngsters around India. The social information in India enables them to have an exceptionally nourishing and adjusted eating regimen. About the entire of the Indian populace have rice at any rate once per day which enables them to have starches in their framework. Since India is most generally known for delivering and sending out rice to different nations, their way of life will be predominantly ruled by rice. (Anita-Hass)

7.8 LET US SUM UP

India needs to focus on strategies to improve the accessibility and moderateness of protein rich nourishment products utilizing the most recent natural well disposed innovation without the need of extra land and water. Biogas or flammable gas or methane delivered from homestead/agro/crop/local waste can likewise be utilized notwithstanding dug gaseous petrol for developing protein rich dairy cattle/fish/poultry/pet creature feed monetarily by developing Methylococcus capsulatus microbes culture in a decentralized way close to the rural/utilization regions with little land and water impression. Agriculture in India is exceedingly powerless to dangers like dry spells and floods. It is important to shield the farmers from normal cataclysms and guarantee their credit qualification for the following season. For this reason, the Government of India presented numerous agrarian plans all through the nation. Insurance plans have been structured and actualized looking to shield farmers from vulnerabilities and dangers.

7.9 UNIT-END EXERCISES

1. List the Impact of Natural Disaster on Agriculture.
2. What is PDS?

7.10 CHECK YOUR ANSWER HERE

1. Impact of Natural Disaster on Agriculture:
    a. Loss of enduring yields, for example, garlic, banana and rhubarb
    b. Inability to utilize the land until water retreats on account of floods
    c. Permanent increase in saltiness making the land unacceptable for production
    d. Decreased production prompting lower farmers income
    e. Increase in unemployment undermining rural vocation

2. The Indian nourishment security framework was built up by the Government of India under the Ministry of Consumer Affairs, Food and Public Distribution to disseminate food and non-food things to India's poor at financed rates. This plan was first begun in February 1944, during the Second World War, and was propelled in the present structure in June 1947. Real products dispersed incorporate staple food grains, for example, wheat, rice, sugar and fundamental energizes like lamp oil, through a system of reasonable price shops (otherwise called apportion shops) set up in a few states the nation over. Food Corporation of India, a Government-possessed organization, obtains and keeps up the PDS (public conveyance framework). In inclusion and public use, it is viewed as the most significant nourishment security arrange. In any case, the food grains provided by the proportion shops are insufficient to meet the utilization needs of poor people or are of substandard quality. The normal degree of utilization of PDS seeds in India is just 1 kg for each individual every month. The PDS has been condemned for its urban predisposition and its inability to serve the more unfortunate sectors of the populace viably. The focused on PDS is expensive and offers ascend to much debasement during the time spent removing the poor from the individuals who are less destitute. Today, India has the biggest load of grain on the planet other than China, the service spends Rs. 750 billion ($13.6 billion) every year, just about 1 percent of GDP, yet 21% stay undernourished. Circulation of food grains to needy individuals all through the nation is overseen by state governments. Starting at 2011 there were 505,879 reasonable price shops (FPS) crosswise over India.

7.11 SUGGESTED READINGS

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UNIT – VIII AGRICULTURAL MARKETING - I

STRUCTURE

8.0 INTRODUCTION

Agricultural marketing is induced to cover the services engaged with moving an agricultural product from the farm to the customer. It is likewise the arranging, sorting out, coordinating and treatment of agricultural produce so as to fulfill the farmer, maker and the shopper. Various interconnected exercises are associated with doing this, for example, arranging production, developing and collecting, evaluating, pressing and bundling, transport, stockpiling, agro-and nourishment handling, dissemination, publicizing and sale. Viably, the term includes the whole scope of inventory network tasks. In any case, its key capacity is to help direct these services, by giving skillful and capable market data, consequently connecting different activities into a coordinated service with focused results.

8.1 OBJECTIVES

After studying this unit you will be able to:

Understand the meaning of Agricultural Marketing.

1. Know about Marketed and Marketable Surplus.
2. Can gain knowledge on Distress Sales and Defects of Markets.

8.2 MEANING OF AGRICULTURAL MARKETING IN INDIA

India is an agricultural nation and 33% populace relies upon the agricultural division legitimately or in a roundabout way. Agriculture stays as the primary stray of the Indian economy since times prehistoric. Indian agriculture contribution to the national (GDP) is around 25 percent. With nourishment being the delegated need of humanity, much

accentuation has been on commercializing agricultural production. Consequently, satisfactory production and even dissemination of food has recently turned into a high need worldwide concern. Agricultural marketing is for the most part the purchasing and selling of agricultural products. In prior days when the town economy was pretty much independent the marketing of agricultural products exhibited no trouble as the farmer offered his produce to the shopper on a money or trade premise. The present agricultural marketing needs to experience a creation of trades or moves starting with one individual then onto the next before it arrives at the purchaser. There are three marketing capacities associated with this, i.e., collecting, planning for utilization and appropriation. Selling on any agricultural produce relies upon some couple of elements like the investment of the product around then, accessibility of capacity and so forth. The products might be sold legitimately in the market or it might be put away locally until further notice. Besides, it might be sold as it is assembled from the field or it might be cleaned, reviewed and handled by the farmer or the vendor of the town. At some point handling is done in light of the fact that buyers need it, or now and again to save the nature of that product. The errand of dissemination framework is to coordinate the supply with the current investment by entire selling and retailing in different purposes of various markets like primary, optional or terminal markets.

A large portion of the agricultural products in India are sold by farmers in the private part to moneylenders (to whom the farmer might be obligated) or to town merchants. Products are sold in different ways. For instance, it may be sold at a week after week town advertise in the farmer's town or in a neighboring town. In the event that these outlets are not accessible, at that point produce may be sold at unpredictably held markets in an adjacent town or town, or in the mandi. In India, there are a few focal government associations, who are engaged with agricultural marketing like, Commission of Agricultural Costs and Prices, Food Corporation of India, Cotton Corporation of India, Jute Corporation of India, and so on. There are additionally specific marketing bodies for elastic, tea, espresso, tobacco, flavors and vegetables. Under the Agricultural Produce (evaluating and marketing) Act of 1937, in excess of forty primary products are obligatorily reviewed for fare and willfully reviewed for inside utilization. In spite of the fact that the principle of product markets is an element of state government, the directorate of marketing and review gives marketing and investigation services and budgetary guide down to the town level to help set up product evaluating focuses in chosen markets.

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As we have a convention of agricultural production, marketing and unified business exercises, presently it is the isale opportunity for us to conceptualize and turn out with new thoughts of significant worth included services. These worth included services will give the current agricultural motor another measurement. The following coherent advance could be food handling which not exclusively could be another income developing territory yet in addition can give loads of all day work to our young people. With the changing agricultural situation and worldwide challenge, there is a need of misusing the accessible resources at most extreme level. There was an overview adopted by the directorate of marketing and review in the service of agriculture in 1970-71 and 1971-72, of 500 controlled markets was, with the end goal of evaluating the ampleness and effectiveness of the current managed markets and featuring their downsides and inadequacies and proposing measures to create them. One of the most significant downsides has been the deficient monetary resources of a portion of the market advisory groups. During the fourth arrangement, a focal part plan was drawn up by the service of agriculture to give an award at 20 percent of the expense of improvement of market, subject to a limit of Rs. 2 lakhs. The parity should be given by the business banks.

Another significant development in the field of directed markets is the unmistakable fascination taken by the International Development Agency (IDA) in the improvement of the framework in managed markets. The IDA is financing the improvement of foundation in 50 markets of Bihar. There are likewise some uplifting news on the facade of water system, country foundation, reestablishing water bodies and water reaping. Another activity started to improve the service of the Small Farmers Agri-business Consortium (SFAC) including the arrangement of an investor as the CEO; important extra cash-flow to be given to SFAC.

8.3 AGRICULTURAL MARKETING IN TAMILNADU

The Vision of the Department of Agricultural Marketing and Agri Business is to guarantee reasonable cost to the farming network who are abandoned in the aggressive marketing situation and the mission of accomplishing this is by upholding the current demonstration and principles most successfully and furthermore by concocting, executing new advances planned for lessening pre and post gather misfortunes through proper techniques and empower esteem expansion. Green Revolution activities accomplished independence by expanding food grains production. At the same time, a few activities have been taken to advance agricultural marketing in the state. Agricultural Marketing foundation assumes a significant job in farming and continuing the beat

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of rural monetary improvement. Marketing is as basic to better execution in agriculture as farming itself.

Agri Business is a procedure, which begins with a choice to deliver a saleable farm product and it includes every one of the perspectives identifying with pre and post-reap activities including evaluating, esteem expansion, bundling, preparing and transportation. These tasks increase the price of Farmproduce. The Department of Agricultural Marketing, which is working since 1977, with the fundamental goal of Regulation of Agricultural Marketing, was renamed in the year 2001 as Department of Agricultural Marketing and Agri. Business so as to concentrate on different exercises like Agri Export, Post Crop Management, Food Processing, and so on.

Restructure

One Deputy Director of Agriculture (Agri Business) for each region, one Agricultural Officer for each two squares, one Assistant Agricultural Officer for one square have been presented according to rebuilding on control Agri Business and energize business people. In 103 Uzhavar Sandhais, 51 Agricultural Officers and 52 Deputy Agricultural Officers are posted. Subsequent to rebuilding 239 unique presents have been improved on 906 posts in Agricultural Marketing and Agri Business Department.

The Main Activities

- ❖ Establishment and upkeep of Uzhavar Sandhaigal to support farmers just as buyers.
- ❖ To make marketing public doors for little and minor farmers in development of natural products, vegetables and blooms by arrangement of gatherings which incorporates production, putting away and send out.
- ❖ Establishment and support of controlled markets so as to encourage purchasing and
- ❖ selling of agricultural produce to support the farming network.
- ❖ Grading of agricultural produce in the directed markets and at Farmpossessions to assist the makers with getting gainful cost for their produce.
- ❖ To make mindfulness among the farmers about the advantages of evaluating, marketing, esteem expansion and preparing their produce through managed advertises by taking up preparing, attention and promulgation.

- To set up Agriculture Export Zones for advancing fare of agricultural produce by expanding the zone under exportable yields, giving important post gather the executives and other foundation required and data on costs winning at worldwide markets as a coordinated methodology through PCs.
- To take up Agmark reviewing of agricultural, creature agriculture and ranger service products to assist the purchasers.
- To set up current cold storerooms to empower the farmers to store and sell their produce at great cost and to assist purchasers with getting quality nourishment products.
- Food Processing Industries are elevated to limit wastage of agricultural products, to increase work publicings and to improve foreign trade.

MARKET COMMITTEES

At present 21 Market committees are functioning in Tamil Nadu at district Level.

Regulated Markets

There are 277 Regulated Markets, 15 Check Posts, 108 Rural Godowns and 108 reviewing focuses working under the Market Committees, Competitive and profitable costs are guaranteed for the produce sold by the farmers through shut delicate framework in the Regulated Markets. Free Grading offices for agricultural products and issuing vow advance during trouble sale are additionally accessible in the Regulated Markets. The farmers of conditions of Maharashtra, Karnataka and Andhra Pradesh, sell their produce just through directed markets as mandatory marketing is in power. 1 to 2 % of the estimation of the produce is gathered as market expenses from the saleers who get the produce from the farmers. The acquirement strategy is disentangled in Tamilnadu in order to profit the farmer. 1% of the estimation of the produce is gathered as market expense from merchants. Move is being made for the development of claim working for Nilgiris Market Committee and 4 controlled markets at Ooty, Kothagiri, Coonur and Gudalur during this year at an expense of Rs. 3.25 crores. Fundamental advances will be taken to get land for this reason through District Collector, Nilgiris.

Services Rendered in the Regulated Markets

Directed Markets gives offices, for example, right weighment by utilizing electronic gauge extensions and gauging balances, godown offices, bank office, quick payment, every day price data, rest sheds, drinking water office, dairy cattle sheds, free medicinal guide to farmers, input shops, telephone and fax offices and so forth. Under "AGMARKNET" midway supported plan 93 managed markets have

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been given PC and Internet availability for compelling price spread among farmers through AGMARKNET site. The data on ware costs winning in different markets is made accessible; the farmers would most likely improve cost of their produce by moving their produce to the market which incomes higher. During the year 2007-08, 100 Regulated markets were mechanized through AGMARKNET. The Market Committee-wise foundation offices gave in the Regulated base.

Notification of produce

Up until now, 42 Agricultural Commodities like grains, millets, beats, oilseeds, cotton, turmeric, and so on have been informed. Primary move is being made for Uniform warning of agricultural products all through the state during this monetary year.

Pledge Loan Facilities to Farmers

So as to keep away from trouble sales by the little and minimal farmers in the pinnacle season, Regulated Markets are issuing vow credit to farmers. Under this plan, the farmers can store their agricultural produce in the godowns of Regulated Markets for a greatest time of a half year and take vow credit of 75% of the absolute estimation of the produce upto a limit of Rs.1,00,000. In like manner Pledge Loan offices are reached out to brokers additionally with the pace of intrigue determined occasionally. Enthusiasm at the rate 9% for saleers is charged for vow credit offices. During the past money related year interests were diminished from 8% to 5% to help farmers.

Tamil Nadu Farmers Development and Welfare Scheme

Under this plan, the farmers/inhabitants who sell one measurement tone of paddy (or) equal estimation of their agricultural produce through Regulated Markets each year will be enlisted under this plan and are qualified for an award of a lumpsum sum up to Rs. 1,00,000, if there should be an occurrence of death/perpetual inability happening because of mishap/demise because of snake nibble. In the event that the qualified farmer/occupant looses both the hands or either the legs or both the eyes because of mishap, is qualified for an award of Rs.75, 000/ - . Incase of losing one hand or one leg or one eye or hip inability because of mishap the farmer/inhabitant is qualified for an award of Rs.50,000/ - . The farmers need not income any premium for this reserve. The Market Committee concerned and the Tamil Nadu State Agricultural Marketing

Board will bear the top notch measure of Rs.10 per individual every year similarly.

Agmark Grading

Agmark evaluating is attempted to shield the purchasers from the evil impacts of devouring corrupted nourishment products and to guarantee quality food products. 30 Agmark reviewing research facilities and 1 Principal Agmark Grading Laboratory are occupied with evaluating the advised food products like vegetableoils, ghee, margarine, nectar, wheatflour, besanflour, ground flavors, sago, rice, beats, ragi, jaggery, turmeric, potato and so on. During the past monetary year, complex supplies has been obtained for Rs. 25.46 lakhs under Part-II Scheme for State Agmark reviewing Labs and Agricultural Marketing Focuss so as to profit the packers and buyers.

Construction of Drying Yards in the Villages

Out of 10% of Agricultural ware wastage, 6% misfortune is expected to not following appropriate post reap rehearses. So as to limit the post reap misfortunes in grains, the office has taken up development of drying yards at town level. From the year 1997 under this plan, 1228 drying yards have been developed at a complete expense of Rs.23.20 crores. During the year 2007-08 development of 100 Drying Yards at an expense of Rs. 2.50 crores is under development. This plan will keep during 2008 – 09.

Uzhavar Sandhaigal

103 uzhavar Sandhais are working in the state in Municipality and Town Panchayat regions for direct selling of foods grown from the ground by farmers to buyers with no prevention of brokers. The primary object of Uzhavar Sandhai are to guarantee farmers to show signs of improvement cost for their produce and to empower the buyers to get new foods grown from the ground at a lesser cost than the retail market cost. During the year 2007-08, move is being made to set up 50 more Uzhavar Sandhais at an expense of Rs. 11.25 crores. Hasthampatti Uzhavar Sandhai in Salem area has been initiated on 14.01.2008. As on date 104 Uzhavar Sandhais are working .Action is being taken to build up the remaining 49 Uzhavar Sandhais. Cold extra spaces of 2.0 M.T. limits are to be introduced in 22 top performing Uzhavar Sandhais at an expense of Rs.133.10 lakhs.

Different measures are taken by this Department to expand the landings in Uzhavar Sandhai, increase the quantity of farmers and for improvement of Uzhavar Sandhai. Regularly, on a normal, 1053 MT of products of the soil worth Rs.108 lakhs are sold profiting 7800 farmers and 1,97,000 shoppers for every day.

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Services to be rendered in the Uzhavar Sandhaigal

Extra offices like electronic gauging scale, Plastic plate, trolleys, wastage canisters will be accommodated the farmers in the Uzhavar Sandhaigal. PCs for powerful correspondence, new cross breed seeds, seedlings, natural farming philosophy, vermicomposting exhibit and post reap the board preparing to farmers will likewise be offered to those farmers visiting Uzhavar Sandhai. 25 Uzhavar Sandhais have been provided with PCs.

8.4 MARKETED AND MARKETABLE SURPLUS

Each agricultural product is, truth be told, delivered available to be purchased in the market to procure some money income and along these lines meet numerous other family prerequisites which are not fulfilled on the farm. Indeed, even foodgrains which are developed by the farmers are not only implied for fulfilling his own family prerequisites but on the other hand are intended for fulfilling the necessities of non-farming populace in the towns and urban communities. Obviously, the surplus accessible available to be purchased shifts from farmer to farmer for different reasons. This is likewise valid for other food yields like consumable oilseeds, organic products, vegetables, milk, eggs,etc. All the produce of these crops isn't accessible available to be purchased on the grounds that a few amounts are held for seed reason, home utilization, subsidies to companions and relatives and a few amounts are lost because of decay, and so on. Therefore, two ideas viz. "attractive excess" and "marketd overflow" have been begat to find out the amount of produce accessible for marketing and the amount really promoted. The amounts are evaluated as referenced beneath:

1. Production on a farm.
2. Utilization.
    a. Seed purpose.
    b. Home consumption.
    c. Gifts to friends and relatives.
    d. Kind wages to labour. Total (a to d)
3. Marketable surplus (1 - 2)
    a. Losses due to spoilage
    b. Marketed surplus(3-4)

Cash Crop or Commercial Crop

The bigger the amount really advertised, more noteworthy the money income to a farmer. In like manner, crops additionally came to be known as money crops, which gain more money income to the farmers. The attractive or marketd surpluses rely on sort of crop for example

foodgrain, other nourishment crop or non-food crop. On account of foodgrain and other food crops, the surpluses are commonly less on little and minor farmes and their scopes all around generally as indicated by the size of holding and other related factors. Be that as it may, on account of non-food crops viz. Cotton, sugarcane, and so on which are utilized as crude material in agro-based industry, practically all the production is accessible available to be purchased with the exception of little amounts kept for seed. In these yields, attractive surpluses are about 100 percent. Such yields are called as money crops or business crops. On a similar relationship, even food crops with enormous attractive surpluses (state above half), can be viewed as money or business crops.

Because of the improvement of these two ideas, the investigations in regards to attractive and advertised surpluses have stimulated enthusiasm for the brains of scientists in Agricultural Marketing so as to recognize or classes certain yields as money crops or business crops. ID of specific yields as business or money crops has numerous policy suggestions from the perspective of development of good sorted out business sectors and other framework offices, for example, roads, stockpiling's (counting cold stockpiling's for perishables), correspondence, market data, banking services, and so on.

Marketable and marketed surpluses of some commodities are given in the table. Following inferences emerge from this table:

1. Marketable surplus for foodgrains, especially in a shortage state are low and such yields may not be considered as business crops around there. Be that as it may, in Punjab, wheat which is a foodgrain crop is a business crop as its attractive surplus is around 85%.
2. All organic product yields are certainly business crops on the grounds that their attractive surpluses are above 96%.
3. Similarly, vegetables are likewise business crops, which is apparent from their attractive surpluses being above 96% and advertised surpluses above 85%.
4. Special notice should be made about milk. Some 25-30 years back, dairy action was simply completed as auxiliary to trim production to meet the family necessity of milk and no overflow. Yet, after the development of new high yielding bovine and wild ox breeds, improvement in sustaining and the executives practices of milk creatures, sure of marketing offices through Govt. Milk Schemes and Producer's Co-agents, the milk production has expanded in all respects quickly. It has spread in the country zone and it has now turned into a significant business movement as can be seen from the attractive surpluses running from 77% to 92% with the farmers. On certain farmes, where number of crossbred

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cows or unadulterated bison is more than 5, dairy has turned out to be primary venture outperforming crop production. Journal has accepted a business status giving standard money income to farmers and work to his family.

Some oil seed crops like groundnut, sunflower, safflower, soyabean, castor and different yields like cotton and sugarcane are additionally perceived as business crops as the attractive surpluses in them are practically 100% and in this manner they are money crops for the farmers. What's more, there are a few yields, which are developed in little pockets, yet they have huge attractive surpluses and thus they are money crops for farmers in those zones. Models are Red stew, turmeric, tobacco, minor natural products, and so on.

Table: Marketable and Marketed Surpluses of some commodities

Commodity	State	Marketable Surplus %	Marketed Surplus %
Maize	Himachal Pradesh	-	36.37
Paddy	Himachal Pradesh	-	14.19
Wheat	Himachal Pradesh	-	24.23
Wheat			
a. Small & Marginal Farms	Punjab	76.63	-
b. Medium Farms	Punjab	80.63	-
c. Large Farms	Punjab	89.20	-
Average	Punjab	85.52	-
Fruits			
Mango	Punjab	96.40	-
Grapes	Punjab	96.60	-
Citrus	Punjab	98.00	-
Mango (Ratnagiri)	Maharashtra	98.00	-

Vegetables			
Tomato	Himachal Pradesh	98.00	94.50
Cauliflower	Himachal Pradesh	96.33	94.40
Cabbage	Himachal Pradesh	95.66	93.00
Brinjal	Himachal Pradesh	96.60	94.39
Peas	Himachal Pradesh	89.25	84.80
Potato	Amritsar-Punjab	78.78	-
	Jalandhar-Punjab	83.65	-
	Moga-Punjab	91.69	-
Milk	Jalgaon, Maharashtra, Sangli	77.41	-
Milk	Western Maharashtra	91.88	-
	Konkan Maharashtra	91.66	-

8.5 DISTRESS SALES

An distressed sale is a situation when a property, stock or other resource is sold in a critical way. Troubled sales regularly happen at a misfortune since resources tied up in the benefit are required inside a brief timeframe. The resources from these advantages are regularly used to income for obligations, restorative costs or different crises.

REASONS FOR DISTRESSED SALES IN AGRICULTURE

1. Poor policy and Planning: before, Government system essentially focused around raising agricultural yield and improving nourishment security as opposed to perceiving the need to raise farmer's income, Absence of direct measure to advance farmers welfare.
2. Declining normal size of Farmpossessions: Increasing statistic weight, camouflaged work in agriculture and revolution of agricultural land for elective uses, have definitely diminished the normal land holding.
3. Dependence on precipitation and atmosphere: Indian agriculture is vigorously reliant on storm and regularly expanding worldwide

temperature has made agriculture increasingly inclined to outrageous climate occasions.

4. Collapsing Farmcosts: Low worldwide costs have influenced sends out and the less expensive imports have harmed residential costs in the nation.
5. Lack of simple credit to agriculture and interdependent on cash banks
6. Fragmented supply chains: Large holes away, Cold chains
7. Limited availability
8. Absence of marketing foundation
9. Lack of Mechanization: Introduction of most recent innovation has been constrained because of different reasons like publicness for credit and low mindfulness.
10. Crop production is consistently in danger in view of bugs and maladies.
11. Shortage of data sources like seeds and water system offices.
12. Deficiencies in Agricultural Produce Market Committees (APMC) Act.
13. Profiteering by go betweens.

Impact

- ❖ The above factors have brought about low income for farmers which is apparent from the frequency of poverty among Farmfamily units.
- ❖ The low and very fluctuating farm income is causing an inconvenient impact on the enthusiasm for farming and Farminvestments and is additionally driving an ever increasing number of cultivators, especially more youthful age gathering, to leave farming.
- ❖ The nation additionally saw a sharp increase in the quantity of farmers suicides in the most recent decades.
- ❖ This can cause an unfavorable impact on the eventual fate of food security and the condition of agriculture in the nation.
- ❖ The National Commission on Farmers (NCF) and Evergreen Revolution
- ❖ NCF was comprised on November 18, 2004, under the chairmanship of Professor M.S. Swaminathan.
- ❖ Its proposals for the most part focused around issues of access to resources and government disability privileges and contain recommendations for comprehensive development of farmers and the agriculture division in India.

- On the issue of Minimum Support Price, the board of trustees prescribed furnishing farmers with a base help cost at half over the expense of production delegated C2 by the Commission at Agricultural Costs and Costs (CACP).
- CACP proposes three meanings of production costs :
- A2: Actual paid-out costs acquired by farmers — in real money and kind on seeds, composts, pesticides and so forth.
- A2+FL: It is A2 cost in addition to an ascribed estimation of unpaid family work.
- C2: It represents the rentals or intrigue credits, claimed land and fixed capital resources far beyond A2+FL.
- The Committee prescribed the MSP to be fundamental expense and endorsed MSP half above C2.

Solutions

1. Development activities including framework, industrial intercessions, farmer amicable strategies and institutional instruments can expand the agricultural development and farmers income.
2. Technology can decrease 'yield holes' and accordingly improve profitability.
3. The water-use effectiveness can be improved fundamentally with better utilization of advances that incorporate dribble water system.
4. The quantitative structure for multiplying farmers income has the accompanying seven sources of development:
5. Increase in efficiency of crops
6. Increase underway of domesticated animals
7. Improvement in the productivity of information use (cost sparing)
8. Increase in crop power
9. Diversification towards high-esteem crops
10. Improved price acknowledgment by farmers
11. The move of cultivators to non-farm occupations
12. Improvements in unified sectors: Many little farmers can't leave agriculture on account of an absence of chances in the non-farm sector. Henceforth, united sectors like agriculture, nourishment handling, poultry and so on should be pushed. For example, government activity like Project CHAMAN, AGRI-UDAAN program, Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters (SAMPADA) and so forth are striking.
13. Cooperative Agriculture: In this specific situation, strongification of land possessions likewise winds up imperative to raise farmer wages. Farmers can intentionally meet up and pool land to pick up the advantages of size. Through strongification, farmers can

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crop the economies of scale both in information obtainment and yield marketing.

14. There is a need to make a move from rice and wheat-driven arrangements to millet, beats, natural products, vegetables, animals and fish.
15. The production of an aggressive, constant and brought together national market is required for farmers to show signs of improvement costs.

Government Steps to reduce Agrarian Distress

- The objective set to twofold farmers' income by 2022-23 is integral to advance farmers welfare, lessen agrarian trouble and bring equality between the income of farmers and those working in non-agricultural callings.
- In ongoing years, the Central government has taken different estimates like the PM Fasal Bima Yojana (PMFBY), PM Krishi Sinchai Yojana (PMKSY), electronic National Agricultural market (e-NAM), Soil wellbeing card, Neem-covered urea and so forth.
- Agriculture is a noteworthy part of Priority Sector Lending (PSL), and the objective for bank loaning to agriculture has been changed upwards consistently.
- In expansion to nourishment subsidy under PDS, the service likewise gives compost sponsorship a seemingly endless amount of time after year.
- In the spending limit of 2018 for farmers, the Union spending plan has declared MSPs at half over the production cost.
- It additionally proposed to dispatch "Task Greens" in the agriculture division on similar lines of the milk area's "Activity Flood".
- The 2019 spending plan declared a Farmbolster conspire (PM-KISAN) for farmers owning up to 2 hectares of terrains.
- Some States have presented farm bolster plans, models being the Rythu Bandhu Scheme (Telangana) and the Krushak Assistance for Livelihood and Income Augmentation (KALIA) plot (Odisha)
- The regularly changing agriculture division requires proactive policy the board which can amplify benefits for all partners.
- Raising the MSP, price insufficiency payments or income bolster plans must be a halfway answer for the issue of giving profitable comes back to farmers.

- A reasonable arrangement is market changes to empower better price revelation joined with long haul exchange policies positive to trades.
- For better cost for farmers, agriculture needs to go past farming and build up a worth chain including farming, wholesaling, warehousing, coordinations, handling and retailing.
- The best and least distortionary policy to help farmers would be through direct advantage moves.
- What is bounteously clear is that credit waivers aren't the panacea they're described as politically. The individuals who need to help India's farmers ought to work a lot harder to make sense of what they truly need.

8.6 DEFECTS OF MARKETS

Following are some of the main defects of the agricultural marketing in India:

Lack of Storage Facility

There is no appropriate stockpiling or warehousing offices for farmers in the towns where they can store their agriculture produce. Consistently 15 to 30 percent of the agricultural produce are harmed either by rodents or rains because of the nonattendance of appropriate storerooms. Consequently, the farmers are compelled to sell their surplus produce soon after crops at an extremely low and un-gainful cost.

Distress Sale

The majority of the Indian farmers are exceptionally poor and therefore have no ability to sit tight for better cost of his produce without appropriate credit offices. Farmers frequently need to go for even pain closeout of their yield to the town moneylenders-cum-merchants at an extremely poor cost.

Lack of Transportation

Without legitimate road transportation offices in the country zones, Indian farmers can't arrive at adjacent mandis to sell their produce at a reasonable cost. Subsequently, they like to sell their produce at the town markets itself.

Unfavourable Mandis

The state of the mandis are additionally not in any way good to the farmers. In the mandis, the farmers need to hang tight for arranging their produce for which there is no storerooms. Hence, the farmers should lake help of the go between or dalal who lake away a noteworthy portion of the benefit, and concludes the arrangement either to support him or for arhatiya or wholesalers. An investigation made by D.S. Sidhu uncovered

that the portion of go betweens if there should arise an occurrence of rice was 31 percent, if there should be an occurrence of vegetable was 29.5 percent and in the event of natural products was 46.5 percent.

Intermediaries

An enormous number of go-betweens exist between the cultivator and the buyer. All these go betweens and dalals guarantee a decent measure of edge and therefore decrease the profits of the cultivators.

Unregulated Market's

There are colossal number of unregulated markets which receive different acts of neglect. Predominance of false loads and measures and absence of reviewing and institutionalization of products in town advertises in India are continually conflicting with the enthusiasm of uninformed, little and poor farmers.

Lack of Market Intelligence

There is nonattendance of market knowledge or data framework in India. Indian farmers don't know about the decision costs of their produce winning in enormous markets. In this way, they need to credit any un-gainful cost for their produce as offered by merchants or agents.

Lack of Organisation

There is absence of aggregate association with respect to Indian farmers. A modest quantity of attractive surplus is being brought to the business sectors by an immense number of little farmers prompting a high transportation cost. As needs be, the Royal Commission on Agriculture has properly watched, "Inasmuch as the farmer does not become familiar with the arrangement of marketing himself or in co-operation with others, he can never sale better with the purchasers of his produce who are clever and very much educated."

Lack of Grading

Indian farmers don't offer significance to evaluating of their produce. They delay to isolate the subjectively great yields from awful crops. Subsequently, they neglect to get a decent cost of their quality product.

Lack of Institutional Finance

Without sufficient institutional fund, Indian farmers need to go under the grip of merchants and moneylenders for taking credit. After

gather they need to offer their produce to those moneylenders at horrible terms.

Unfavourable Conditions

Farmers are marketing their product under exhortation conditions. A colossal number of little and minor farmers are constrained by the rich farmers, saleers and moneylenders to fall into their snare to go for pain closeout of their produce by including them into an endless loop of obligation. All these decline the income appropriation example of the town economy of the nation.

8.7 LET US SUM UP

Agricultural marketing framework is an effective route by which the farmers can arrange their surplus produce at a reasonable and sensible cost. Improvement in the state of farmers and their agriculture depends to a huge degree on the detailed plans of agricultural marketing. The term agricultural marketing incorporate each one of those exercises which are for the most part identified with the acquirement, reviewing, putting away, shipping and selling of the agricultural produce. Hence Prof. Faruque has properly watched: "Agricultural marketing includes all activities associated with the development of Farmproduce from the maker to a definitive customer. Along these lines, agricultural marketing incorporates the activities like gathering, evaluating, preparing, protecting, transportation and financing."

8.8 UNIT-END EXERCISES

1. What is the concept of Agricultural Marketing?
2. Explain the notification of producing in agriculture.

8.9 CHECK YOUR ANSWER HERE

1. Most of the agricultural products in India are sold by farmers in the private part to moneylenders (to whom the farmer might be obligated) or to town saleers. Products are sold in different ways. For instance, it may be sold at a week by week town advertise in the farmer's town or in a neighboring town. On the off chance that these outlets are not accessible, at that point produce may be sold at sporadically held markets in a close-by town or town, or in the mandi. In India, there are a few focal government associations who are engaged with agricultural marketing like, Commission of Agricultural Costs and Prices, Food Corporation of India, Cotton Corporation of India, Jute Corporation of India, and so on. There are additionally specific marketing bodies for elastic, tea,

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espresso, tobacco, flavors and vegetables. Under the Agricultural Produce (evaluating and marketing) Act of 1937, in excess of forty primary products are mandatorily reviewed for fare and intentionally reviewed for inner utilization.

2. So far, 42 Agricultural Commodities like oats, millets, beats, oilseeds, cotton, turmeric, and so on have been advised. Fundamental move is being made for Uniform notice of agricultural products all through the state during this monetary year.

8.10 SUGGESTED READINGS

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UNIT-IX AGRICULTURAL MARKETING-II

STRUCTURE

9.0 INTRODUCTION

Agricultural marketing framework is an effective path by which the farmers can arrange their surplus produce at a reasonable and sensible cost. Improvement in the state of farmers and their agriculture depends to an enormous degree on the detailed courses of action of agricultural marketing. The term agricultural marketing incorporate every one of those exercises which are for the most part identified with the acquisition, evaluating, putting away, shipping and selling of the agricultural produce. Hence, Prof. Faruque has properly watched: "Agricultural marketing includes all tasks engaged with the development of Farmproduce from the maker to a definitive buyer. In this manner, agricultural marketing incorporates the tasks like gathering, reviewing, preparing, saving, transportation and financing."

9.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about Agricultural Marketing Types.
2. Know about Market Intelligence.
3. Can gain knowledge on futures trading.

9.2 TYPES OF AGRICULTURAL MARKETING

Primary or Local Markets

Primary markets, known as Hatts or Shandies are held on more than one occasion per week in the area of a gathering of towns. There are in excess of 22,000 such markets in India. A large portion of the

agriculturists sell their Farmproducts in these business sectors. Over half of the absolute marketd surplus is sold in these business sectors. These business sectors are composed by town Panchayats who charge some lease from businesspeople for the space involved. Wheeling and saleing and haggling is a typical component of these business sectors. The town bania goes about as a go between in these business sectors.

Secondary Markets

These are otherwise called 'discount' or 'collecting' advertises and are called 'mandis' or 'gungs'. There are around 4145 such markets. These business sectors are perpetual in nature; business in the business sectors is executed consistently. The produce is salet with in enormous amounts and concentrated administrators become vital for the introduction of various services. The business sectors give offices of capacity, taking care of and banking services and are well-served by roads and railroads. Various go betweens work in these business sectors.

Terminal Markets

These business sectors play out the capacity of conveying merchandise to purchasers, last purchasers or to spots of handling. Such markets are to be found in enormous urban areas or at ports. The territory of their task reaches out over a state.

Fairs

Fairs hung on religious events at pioneer focuses are significant sources of marketing of agricultural produce in India. Such fairs are held yearly and are sorted out by region officials, nearby bodies or private organizations. These fairs are extremely prevalent in Bihar, W. Bengal, UP, Orissa, Maharashtra, Gujarat and Rajasthan.

Regulated Markets

These have been set up by the Government to check false practices which are commonly polished by merchants in the primary and auxiliary markets. In these business sectors, the principles and principles are endorsed by the Government marketing rehearses.

Co-Operative Marketing

These business sectors work based on standards of collaboration. A helpful marketing society convey the agricultural produce direct to the

purchasers in this manner dispensing with an enormous armed force of mediators and go-betweens.

State Trading

State exchanging agricultural produce has turned into a significant component of agricultural marketing in India. State organizations like, Food Corporation of India, set up their selective revolves in and around towns and mandis at gather time to secure produce from laborers to Government at fixed costs.

9.3 REGULATED MARKETS

Controlled markets are working under market boards of trustees. At present 21 Market boards are working in Tamil Nadu at locale Level. There are 268 Regulated Markets, 15 Check Posts, 108 Rural Godowns and 108 reviewing focuses working under the Market Committees. Aggressive and profitable costs are guaranteed for the produce sold by the farmers through shut delicate framework in the Regulated Markets. Free evaluating offices for agricultural products and issuing vow credit during pain sale are additionally accessible in the Regulated Markets. The farmers of conditions of Maharashtra, Karnataka and Andhra Pradesh, sell their produce just through managed advertises as mandatory marketing is in power. 1 to 2 % of the estimation of the produce is gathered as market charges from the saleers who secure the produce from the farmers. The acquisition strategy is improved in Tamilnadu in order to profit the farmer. 1% of the estimation of the produce is gathered as market expense from merchants . Move is being made for the development of claim working for Nilgiris Market Committee and 4 directed markets at Ooty, Kothagiri, Coonur and Gudalur during this year at an expense of Rs. 3.25 crores. Primary advances will be taken to procure land for this reason through District Collector, Nilgiris.

Directed market is discount advertise where purchasing and selling is managed and constrained by the state government through the market advisory group. It goes for the end of undesirable and deceitful works on decreasing marketing charges and giving offices to makers and saleers in the market. The poor gauges of primary and optional markets where maker convert their produce into money. The pervasiveness of different negligence's, for example, short-loads, unnecessary market charges, unapproved reasoning, corruption of produce and the nonattendance of hardware to settle questions among merchants and purchasers were perceived as the principle deterrents in agricultural marketing. These deformities and malpratices can be recuperate by the foundation of managed marketing their nation might be controlled either by neighborhood bodies or under state enactment was proposed first in

1928 by the Royal commission on Agriculture. The development of principle of market picked up energy simply after 1930. The Bombay Agricultural produce market demonstration of 1939 was passed in regard all agriculture produce Viz., oats, filaments and organic products and so forth. Controlled markets for the most part handle tobacco, cotton, groundnut, grains, coconuts, arecanuts, potatoes and turmeric and so on.

Main Features of Regulated Markets

Market Committee

Market advisory group is contained agents from various areas of society that is farmers, brokers, government neighborhood bodies and co-employable. All in all it is seen that market board of trustees comprises of 15 individuals 10 from farmers 3 from saleers and 1 each from the Government and nearby bodies.

Area of Operation

The concerned state government informs that its goal to control exchange practices indicated zone such a zone of activity is set down either as a metropolitan farthest point or locale or even it might be an area. In Maharashtra territory of activity of each directed market limited to one taluka.

Methods of Sales

In managed advertise the clearance of agril. Produce is attempted either by public sale or by close delicate strategy these business technique guarantee a reasonable and focused cost for the produce and avert the bamboozling of farmers by market functionaries. By these strategies, the sale is done under the supervision of an authority of the market advisory group.

Licensing of Market Functionaries

All the market functionaries incorporating brokers working in the managed market need to get a permit from the market council in the wake of incomeing the recommended expense to carry on their business, the authorized saleers need to keep appropriate account and keep up accounts as per the purchase laws of the market board.

Market Levies or Fees

Cultivators and brokers need to income market charges which are determined based on estimation of volume of a product purchased and sold in the business sectors. Here and there it might be founded on cartload or truckload. To meet its authoritative consumption and so as to make foundation offices in the market region the market boards gets resources from the accompanying sources:

- Market charges on the produce brought for the sales in the market yard.
- License expense, recharging charge of market agents working in the territory.

Settlements of Disputes

Questions emerging between maker vender and brokers by reason of the nature of the maker, accounts and findings of unapproved charges are settled by the sub-council of the market panel this maintain a strategic distance from the lawful complexities and pointless use.

ADVANTAGES OF REGULATED MARKETS

- Market charges are obviously characterized and determined.
- Market practices are controlled and unwanted exercises are brought leveled out.
- Correct weighment is guaranteed by periodical investigation and confirmation of scales and loads.
- Suitable plans for the settlement of debates is given.
- Reliable and forward-thinking market news are made accessible to the farmers.
- Suitable quality principles and standard terms for purchasing and selling are advantageously authorized.
- Reliable measurements of entries, stocks, costs are kept up.
- Other offices like shades for the closeout of produce, space for stopping trucks, drinking water offices and reservoirs of steers, rest houses, reviewing and warehousing offices are given.
- Public sell off technique is carefully pursued.
- Propaganda for agricultural improvement is all the more helpfully done. Assuming control over all image directed markets have created an entire some impact on marketing structure and have commonly raised the proficiency or marketing at the primary level.

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ORGANIZATION OF REGULATED MARKETS AND CONSTITUTION OF MARKET COMMITTEE

The primary object of directing the market is to defend the enthusiasm of the maker saleers raise the gauges of the neighborhood Markets where the main trade of the products happens. So as to accomplish the product in every one of the controlled markets. Market boards of trustees are set up comprising of the agents of the producers, brokers, neighborhood bodies, venders, co-employable shops and the state government chosen people. Makers are for the most part in the dominant part on these boards of trustees. The market board of trustees should comprise of 12 to 18 individuals relying upon the size of the market and different contemplations, which are in charge of using the store for

- Maintenance and improvement of the markets and its buildings.
- Maintenance of standards of weights and measures.
- Income and pension of the staff
- Incomement of investments of loans.
- Collection and dissemination of market information.
- Propaganda for agricultural improvement.

9.4 CO-OPERATIVE MARKETS

Cooperative sale social orders are shaped on a helpful premise. These social orders organize to sell the result of the part farmers and charge just an ordinary commission. Helpful sale social orders or agreeable marketing therefore is a willful relationship of Farmmakers for the joint closeout of their surplus products. It is the framework by which a gathering of farmers intentionally pool their resources and constrongate to continue a few or the majority of the procedure in marketing of the agricultural produce.

OBJECTIVES OF COOPERATIVE MARKETING

The fundamental target of setting up a co-usable marketing is to energize the savvy and methodical marketing of agricultural produce, to dispose of theory and waste, to cause conveyance of agricultural products among maker and shopper as immediate as to can be proficiently done and to settle the marketing of agricultural preparations. The co-usable marketing is an option in contrast to private sellers with the fundamental goal of verifying an enormous portion of benefits for the maker. A co-usable marketing is in this manner to store, transport, process the

Farmproducts in the structure, at the time and at the spot that customers want.

PATTERN OF COOPERATIVE MARKETING

At present the core of co-operative marketing comprises of commission shops which have been set up in the grain markets, called "Ghala Mandies." These commission shops get agricultural produce from the part and non part farmers and sell it in the nearby market against a commission of three percent. These co-operative shops don't attempt accumulation of agricultural produce at the farm. They additionally don't give the transportation and handling offices to the part farmers. The introduction of the commission shops is particularly similar to that of a private specialist.

PROBLEM OF COOPERATIVE MARKETING

A co-operative marketing society is fundamentally an exchanging firm. It is looked with different issues. These issues are isolated into following three sectors:

Economic Problems

Scale

The co-operative marketing society because of low volume of business works from a more minor perspective. In the dynamic business time frame, because of occasional agricultural production, the surplus produce is short. The general public is anything but a reasonable financial unit. So as to diminish the fixed expense per unit of turnover, it must be transformed into a multipurpose society.

Finance

The co-operative marketing society seriously needs money. So as to expand the business volume of the general public, the individuals are to be paid development cash before the sale continues of the agricultural product. The general public does not have sufficient marketing fund. It is along these lines not in a situation to build the volume of business.

Management

The little turnover in commission shops does not take into consideration the work of a certified business prepared for the work of a certified business prepared oversees. The insufficient service is one of the serious issues looked by the general public.

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Technological Problems

Business character

The exchanging exercises of a marketing society are carried on a custom way. The service, because of dread of misfortune does not go out on a limb. They just pursue the exchanging practices of the commission shops kept running by private vendors in agriculture produce.

Decision Making

The working of the general public is influenced because of powerlessness to touch base at a brisk convenient choice. As the basic leadership of the general public is finished by the service board of trustees, it sets aside some effort to assemble the conference and afterward take choices. The choices of the general public are for the most part individual situated as opposed to being business arranged.

Lack of storage and transport facilities

The marketing social orders don't more often than not have satisfactory capacity and transport offices. The offices are basic for the proficient task of the shops.

No Outright Purchase

The commission shops are not rehearsing any inside and out buy. They don't rehearsing any out and out buy. They don't make payments to the farmers on receipt of the produce. The farmers, along these lines, delay to convey the produce to these shops.

Sociological Problem

The service of the co-employable marketing society is normally not co-usable disapproved. The official individuals from the general public join for political authority. The static authority is likewise a factor for wasteful working of the general public.

Solution to the Problem

The issues of co-operative marketing are heterogeneous. Thusly there can't be single answer for the issue. The marketing society, it is to be a practical financial unit, must switch over to multipurpose society. It should take up crafted by preparing the farm products, in the structure the customers want.

The handled products ought to be institutionalization of agriculture produce. Satisfactory plans will must be made for the transportation of merchandise. Storerooms will must be given in the country zones. The control of the co-usable marketing ought to be in the hands of veritable farmers who sell their produce through it.

9.5 MARKET INTELLIGENCE

Market Intelligence is a procedure of giving you bits of knowledge into what may occur sooner rather than later. This procedure necessitates that we go from market information to data and afterward to advertise insight. Here is an primary model:

- Data - Prices for our products have dropped by 5 percent.
- Information - New seaward offices have lower work costs.
- Intelligence - Our key rival is going to procure an office in India that will expand storeroom for future sale in the market that will provide food higher benefits.

Insight varies from data since it requires some type of examination. The motivation behind this examination is to get some importance from the heaps of information and data. Market Information and insight are urgent to empower farmers and saleers to settle on educated choices about

1. What to grow
2. When to crop
3. Where to markets the produce
4. Whether to store it or not

Market Intelligence ought not just present the certainties, pronouncing what we found; yet rather create an impression with certainty that what is going to occur in not so distant future. Market Intelligence enables us to stay focused by improving our vital choices and this prompts better execution against our rivals. Market Intelligence does not pursue down every one of the realities, yet gets enough data to make a sensible determination for prompt activity. The most significant marketing insight need of the farmer is price knowledge. As farmer become more market situated, augmentation laborers should be in a situation to guidance them on the most proficient method to develop crops as well as on the best way to market them. Learning of produce taking care of, capacity and bundling is additionally basic. A considerable lot of the projects of state and focal governments don't have a part of Market Intelligence which at last prompts acknowledgment of lower net costs by farmers. The poor comprehension and utilization of market knowledge is the consequence of different components including:

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1. Limited accessibility of market knowledge.
2. Poor access to pertinent market data.
3. Limited scattering of existing data to farmers and business people.
4. Lack of price estimating framework.
5. Limited ability to comprehend and utilize market knowledge.

The principle motivation behind Agricultural Marketing Information System (AMIS) is to scatter exact and convenient marketing data in order to help in marketing basic leadership and marketing endeavors of business people, farmers, government, development associations, academicians, and analysts. Agricultural Market Information System (AMIS) helps in guaranteeing that produce goes to business sectors where there is an investment for it. It abbreviates marketing channels and eliminates transport expenses, and guarantees that each marketing exchange is a reasonable one, and that all members share the dangers and advantages. Be that as it may, this does not occur if marketing data is dispersed inconsistent, as is commonly the situation when some little scale farmers in India are offering to a moderately couple of enormous scale vendors. The farmers at that point wind up bearing most of the hazard, while the vendors end up with most of the benefits. Farmers must almost certainly search out and think about the data accessible for various outlets in the event that they are to offer to best bit of leeway. Price data is less helpful if there is just a solitary market outlet, or if farmers are price takers instead of price searchers. Where there is a wide hole between the Farmentryway cost and the cost paid in discount markets and by shoppers, marketing data can help tight the hole.

The Isale Agricultural Marketing Information System (AMIS) should be Responsible for:

- sourcing all the market information/data being gathered by different organizations;
- processing and investigating such information/data to transform it into useable learning; and
- developing instruments/frameworks for data/learning scattering through different media, for example, radio, TV, pamphlets, announcements, and sites.

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9.6 FUTURE TRADING IN AGRICULTURE

There is a significant time hole between the season of starting investment and the receipt of profits from the last Farmproduce. In this manner, a farmer is exceptionally powerless against price changes as arranging is done at the season of planting dependent on the then common costs. In like manner, buyers of agricultural wares for use as contributions to production must make decisions on their accessibility and cost at various purposes of time during the year. To prepare for price instability and vulnerability in accessibility, saleers and purchasers frequently go into forward contracts. These agreements determine the amount, quality and cost of the product they would convey available to be purchased or procure for buy at a pre-chosen date later on.

'Future contracts' are, consequently, institutionalized contracts to purchase or sell an amount of a standard nature of an product. These are exchanged trades, through merchants, with no requirement for the purchaser and vender to meet and arrange. A significant component is that an agreement need not be settled by genuine conveyance. It very well may be coordinated by a balancing contract taken by the purchaser or vender, and the two can be squared anytime at some addition or misfortune. To abstain from incomeing edges, merchants can purchase a choice to offer or obtain an agreement at some predetermined future date. On the off chance that the alternative isn't worked out, on the grounds that price developments are in opposition to desire, the misfortune is limited to the premium paid to hold the choice and the exchange expenses of obtaining it.

Role of Futures Market

Futures trading have an important role in bringing about improvements in agricultural production system:

1. Futures markets empower the farmers to convey the yield at a predefined cost at some future date. The clearing places of the product trades ensure the exhibition of these agreements. A farmer, who is dubious about the costs of his produce, can cover his hazard by selling a fates contract at some point before the collect day.
2. The prospects costs are promptly accessible for the farmers as the product trades disperse costs consistently through different channels. In the event that the cost accessible in the prospects market isn't gainful to the farmer, he can change his trimming plan toward the start of production itself.
3. The prospects market gives isale security to the moneylenders to advancement bigger advances on simpler terms to the farmers in

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this way guaranteeing a base hazard business for both the bank and the farmer.

4. Futures market gives a helpful system through which a farmer who needs to hypothesize on product however does not have the capacity limit can expand his theoretical capacity. He can 'purchase a position' while the yield is developing by purchasing a prospects contract, and at the season of collecting, can sell his crop in the money market at the same time squaring off his 'position in the fates advertise. Along these lines he can pick up from any cost increase in both the spot just as the prospects market at the season of reaping.
5. Commodity trades help the makers and buyers in a reasonable price disclosure and empower them to fence their price hazard. The costs disperse by trades are profoundly dependable and worthy to both the business network and the farmers as they are found by limiting all data accessible by then of time.
6. The quality and conveyance norms forced by the trades in their products go about as benchmarks and increase quality cognizance among farmers.

Advancement

Indian product prospects have had a long and checkered history. Until 2003, the prospects contract was being exchanged distinctly at rural trades that represented considerable authority in one or a couple of products. In 2003, the service commanded the setting up of across the nation online product trades and permitted fates in a wide range of products. There are four national level ware trades, to be specific, the Multi Commodity Exchange (MCX), National Commodities and Derivatives Exchange of India (NCDEX), National Multi Commodity Exchange (NMCE) and the National Board of Trade (NBOT). The initial three trades exchange all the allowed wares, while NBOT exchanges just soyabean. The advances Markets Commission (FMC) as of now direct the products prospects advertise.

9.7 LET US SUM UP

Basically, the movement of purchasing and selling of agricultural information sources and products is called agricultural marketing. The market where the exercises of purchasing and selling of composts, seeds, pesticides, agricultural instruments, and so on that are primary for agricultural production and improvement is known as the market of

agricultural sources of info and devices. The exercises of purchasing and selling of food grains, money crops, vegetables, dairy products, fishery, and green products are additionally the piece of agricultural marketing. In this way, agricultural marketing is found to have involved a wide and significant spot. Under this incorporate wide-running exercises like accumulation of agricultural materials and products, products institutionalization, course of action of purchasing and selling, development of composed market and so on.

Like in different markets, shared association among purchaser and merchant is additionally important in agricultural market. Without the job of farmers, agricultural market is unimaginable. Be that as it may, the job of farmers is both as purchaser and saleers in agricultural market. They become purchasers in agricultural sources of info and apparatuses and become venders in the market of agricultural products. In this way, farmer's job is vital in agricultural market.

9.8 UNIT-END EXERCISES

1. Explain secondary markets.
2. What is Market Intelligence?

9.9 CHECK YOUR ANSWER HERE

1. These are otherwise called 'discount' or 'collecting' markets and are called 'mandis' or 'gungs'. There are around 4145 such markets. These business sectors are lasting in nature; business in the business sectors is executed routinely consistently. The produce is salet with in enormous amounts and concentrated administrators become primary for the introduction of various services. The business sectors give offices of capacity, taking care of and banking services and are well-served by roads and railroads. Various go betweens work in these business sectors.
2. Market Intelligence is a procedure of giving you bits of knowledge into what may occur sooner rather than later. This procedure necessitates that we go from market information to data and after that to market knowledge.

9.10 SUGGESTED READINGS

1. Sadhu and Singh, (2007), “Fundamentals of Agricultural Economics”, Himalaya Publishing House, New Delhi.
2. Bilgrami, S.A.R. (2010), “An Introduction to Agricultural Economics”, Himalaya Publishing House, New Delhi.
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UNIT -X LAND REFORMS

STRUCTURE

10.0 INTRODUCTION

Land reform, a purposive change in the manner by which agriculture land is held or possessed, the techniques for development that are utilized, or the connection of agriculture to the remainder of the economy. Reforms, for example, these might be broadcasted by an service, by intrigued gatherings, or by insurgency. The idea of land reform has differed after some time as indicated by the scope of capacities which land itself has performed: as a factor of production, a store of significant worth and riches, a materialistic trifle, or a source of social and political impact. Land worth mirrors its relative shortage, which in a market economy typically relies upon the proportion between the region of usable land and the size of that territory's populace. As the per capita land region decreases, the overall estimation of land rises, and land turns out to be creatively a source of contention among financial and social gatherings inside the network. The examples of riches and income conveyance and of social and political impact are halfway controlled by the laws administering land residency. These laws indicate the satisfactory types of residency and the benefits and duties that go with them. They characterize the land title and the degree to which the proprietor can publicly discard it and of the income gathering from its utilization. In this sense, the type of residency decides the riches and income conveyance dependent on the land: if private proprietorship is allowed, class separation is unavoidable; conversely, public possession kills such refinements. The types of residency run from impermanent, contingent holding to possession in expense basic, which gives complete unhampered privileges of control and transfer over the land.

10.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about the meaning and concept of Land Reforms in Agriculture.
2. Know about different policies to Land Reforms.

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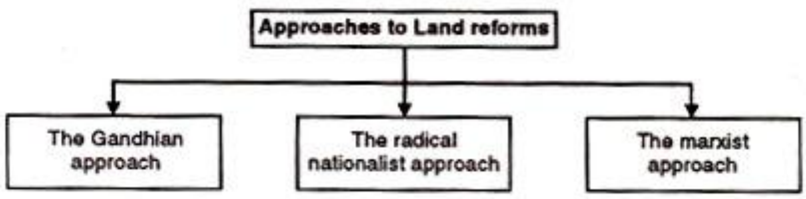
10.2 MEANING/CONCEPT AND OBJECTIVES OF LAND REFORMS

Land reform means arrangement for legitimate institutional framework for the development of agriculture. In a definitive examination, agrarian improvement and ascend in profitability relies on two components innovative and institutional. Among the industrial factors are the utilization of agriculture sources of info and techniques, for example, improved seeds, composts, improved furrows, tractors, gatherers, water system, and so on., which help to raise profitability, regardless of whether no land reforms are presented. Institutional impediments go about as disincentives to the farmers to build production, debilitate their ability to spare and put resources into agriculture as likewise to appreciate the their rewards for all the hard work. Consequently there is the requirement for institutional reforms. Land reform, particularly the foundation of worker ownership, is the most significant part of institutional reform in Indian agriculture.

Closure the misuse of the poor by the rich, narrowing financial imbalance and, at last, moving towards libertarian set-up are among the main points of these standards. The recovery of agriculture is additionally one part of Directive Principles of State Policy. Land reforms become key to this end and hence help to move towards building up a populist society. Land reforms in India have been under taken with numerous targets:

1. To achieve institutional changes in the agrarian structure.
2. To cancel the delegates.
3. To guarantee social equity by circulating the surplus lands attempted from the middle people.
4. To anticipate the misuse of the inhabitants by the landlords.
5. To guarantee balanced or logical utilization of the restricted agriculture lands through roof on land property, union of land possessions and production of monetary land property.

10.3 DIFFERENT POLICIES TO LAND REFORMS



P.C. Joshi has suggested three policies to land reforms. These are:

The Gandhian Policy

The Gandhian view does not bring out legitimately the logical inconsistencies of the Indian country society with respect to its land

relations. In any case, Vinoba Bhave began a development which is known as Gramdan. This development moved toward the landlords to part away with their surplus land as a gift to provide for the individuals who were landless laborers. In the underlying stage the development chilled off.

The Radical Nationalist Policy

The extreme patriot did not work tastefully. It ended up being a formal methodology by and large received by the state governments.

The Marxist Policy

It contemplates the laborer developments and other non-lawful lines and activity. Mulling over of these three policies, it is clear Hint so as to diminish the sharp class contrasts, land reforms must be actualized.

10.4 CAUSES OF FAILURE OF LAND REFORMS IN INDIA

There are so many causes for the poor performance of land reforms programmes in India.

- Lack of political will.
- Unorganised, Inarticulate and passive nature of agricultural workers.
- Apathetic attitude of the bureaucracy.
- Absence of up-to-date land accounts.
- Legal hurdles in the way of implementation of land reforms.
- Transfer of lands to family members.
- Lack of uniformity in Land Reform Laws.
- Limits for retention of land for personal cultivation.
- Role of the corrupt, Inefficient, ineffective administrative machinery.
- Lack of social consciousness among the tenants.
- Emergence of new agricultural technology.

10.5 PRESENT SCENARIO/RECENT DEVELOPMENTS

In the Eighth Five Year Plan, the Central Government had 1 II checked 1,087 crore rupees for the viable execution of the land reforms. Two halfway supported plans are managed via land reforms Division in the Department of Land Resources.

1. Computerisation of Land Accounts (CLR).
2. Strengthening of Revenue Service and Updating of Land Accounts (SRA and ULR).

The CLR was begun in 1988-89 with 100% budgetary help on a pilot venture premise in eight regions:

1. Rangareddy (AP)
2. Sonitpur (Assam)
3. Singhbhum (Jharkhand)

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4. Gandhinagar (Gujarat)
5. Morena (MP)
6. Wardha (Maharashtra)
7. Mayurbhanj (Orissa)
8. Durgapur (Rajasthan)

To expel the issues innate in the manual frameworks of upkeep and of refreshing of land accounts. During Eighth Multi year Plan, the plan was affirmed as a different midway supported plan on computerization of land accounts. The complete use under the plan during this arrangement was Rs. 59.42 crore. During Ninth Five Year Plan, Ministry of Rural development discharged an entirety of Rs. 169.13 crore by covering 259 additional locale under the plan. In 2007, the plan is being executed in 582 regions of the nation leaving those locale where there are no legitimate land accounts. Fortifying of Revenue Service and Updating of Land Accounts (SRA and ULR) was begun in 1987. At first, the plan All', affirmed for the conditions of Bihar and Orissa in 1987-88 and reached out to different states and association domains during 1989-90. This plan was financed by the middle and the state on 50: 50 sharing premise.

Association domains are given full focal help. Under this plan, budgetary help is given for buy of current study hardware resembles Global Positioning System (GPS), work stations, Theodolites, Aerial Survey, office gear resembles covering machines, restricting machines and so on and furthermore development/fix/redesign of Training Institutes and gear's for preparing. Since the initiation of plan, budgetary help of Rs. 324.89 crore has been given to state governments and association regions up to 31st March 2006 towards focal offer under the plan.

India sets up Land Reforms Panels

India is setting up a board to determine disagreements about distribution and securing of land after challenges by farmers who dread losing their land. Land has been the issue at the focal point of a remain off among fanners and government offices attempting to get farmes for modern improvement. The board reported to make policies, manage the states and screen the development of land conveyance and brisk transfer of remuneration debates. As per the present report, 40% of Indians are currently landless and 23% of them are in servile poverty. The new board, whose suggestions will be non-authoritative, will incorporate government authorities and autonomous specialists on land reforms.

On October 29th 2007—The Government has chosen to set up a National Land Reform Council to be going by the Prime Minister. The gathering will manage the usage of another land reforms policy. It will refresh and automate all land accounts in the following five years. "There will be a council for land reforms and will work inside the given time span. One board is for land resources and the subsequent one will be going by the executive". The country development serve himself will head another board called the advisory group on State Agrarian Relations and

Unfinished Land Reforms. In this ongoing development, it has been chosen in principle, yet additionally there is an expectation for the time allotment to encourage this. In one month the council will be named. In a quarter of a year the strategy will be figured. Let us be confident generally advantageous.

Land Acquisition Amendment Bill-2007

1. Land can be obtained for public reason. It likewise incorporates vital purposes primary to the state and public foundation, for example, power, water supply. In any case, if land remains unutilized for a long time, it will return to government.
2. Rate of remuneration not to be not as much as floor cost fixed by the state or normal of more expensive rates paid in half of land sale cases.
3. Persons with tenure rights perceived element for proportionate offer in income.

Rehabilitation and Resettlement Policy-2007

1. National Rehabilitation Commission, Ombudsman for complaint redressal and Rehabilitation and Resettlement Committee for each venture.
2. Consultation with gram Sabhas mandatory.
3. Social Impact Assessment for removal of 400/200 families in plain/slope territories.
4. Tribal improvement plan for uprooting of 200 or more inborn families.
5. If conceivable, land for land remuneration and lodging benefits for the individuals who lose house.
6. Option for influenced families to take 20%—half remuneration with government endorsement.
7. Preference in undertaking employments and one occupation for each family unit, support for aptitude development.
8. Rs. 500/ - month to month benefits for down and out, widows, unmarried young ladies.

10.6 LET US SUM UP

Radical change of land relations has been perceived as a key to India's financial development since 1930s. The privilege to actualize the land reform policies is vested in the State Governments. A few States had begun the expulsion of middle people even before the First Plan (1951-56). This had the impact of bringing a huge measure of cultivable waste land and backwoods land under State ownership. Out of it, a serious critical amount 58 lakh hectares of land has been disseminated among landless cultivators.

The program of land reform as far as the twin targets of development and social equity might be said to have been planned the correct way. Also, land reform measures were con-ceived strikingly however were executed gravely. The fundamental deformity of the Indian land reform strategy has been the low pace at which the entire program moved. Subsequently, even after the evacuation of go-betweens, cultivators have not moved toward becoming proprietors of the dirt, yet

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stayed inhabitants and subtenants. The different authoritative measures acquainted with this end did not deliver any genuine advantage to the little and negligible farmers. The landlords, the jagirdars and other personal stakes got adequate time to devise clever strategies to avoid administrative measures. In the greater part of the States, for instance, landlords have maintained a strategic distance from the law of roof on land holding by keeping their land in imaginary names.

The Sixth Plan (1980-85), despising the moderate development of the land reform laws, takes note of that "the will to actualize this arrangement has been gravely inadequate with regards to from the start." thus, degree of rural poverty was not decreased by any means. The developing rural misery has been changing over the more unfortunate cultivators into horticultural workers. The quantity of rural workers was 31 million of every 1964-65 yet expanded to 73.7 million out of 1991. The ascent in such work power has been principally in States like Andhra Pradesh, Bihar, Karnataka, Kerala, Maharashtra, U.P. furthermore, West Bengal.

There are additionally between State contrasts in land reforms with respect to fixing the roof on holding, the greatest pace of lease on land, and so forth. A few States have not given the tillers the discretionary rights to buy the land they develop. There are additionally no authoritative arrangements in certain States like U.P., Orissa, Karnataka to forestall mala fide moves of land (which acts against the policy of conveying land among the landless workers). There are additionally the issues of occupants in conjuring the help of law against the amazing landlords. Once more, disregarding the laws go since 1950s, about 22% of land-holders still proceed to possess about 76% of the land. About 22% possess no land by any means. Another 25% possess parts of land or short of what one section of land. In a word, about 61% either possess no land, or claim monetary or minimal property of one hectare or less. Every one of them together possess under 8% of the complete region. This uncovers an extraordinary disparity, in spite of going of Ceiling Acts.

With the acquaintance of HYV innovation with venture up production and explaining country destitution in the late 1960s, the significance of land reform meas-ures have evacuated the remnants of feudalism. Also, the arrangement of empowering private enterprise in agriculture got quality for the sake of green upheaval. The exceedingly gainful new innovation has spread in India and the Government is effectively advancing free enterprise in agriculture. In any case, fedual kind of abuse still wins in the nation. The grow-ing struggle between landowning classes and poor, in reverse workers and cultivators in various States essentially Andhra Pradesh, Bihar and Uttar Pradesh means that such misuse.

In spite of the fact that these contentions and conflicts are marked as conflicts between upper positions and in reverse standings, truth be told,

the primary explanation for these conflicts are only primitive misuse. "Fedual practices are still in vogue". A washerman is cited as saying:" We need to keep running before or behind the bullock truck when the landlord goes anyplace in the town or the town. Individuals of lower status are not allowed to smoke, ride a bi-cycle, wear shoes or a full length dhoti (fabric) within the sight of the landlord."

10.7 UNIT-END EXERCISES

1. What are the main objectives of Land Reforms?
2. List the districts which the CLR was started with 100% financial assistance.

10.8 CHECK YOUR ANSWER HERE

1. To achieve institutional changes in the agrarian structure.
   To nullify the middle people.
   To guarantee social equity by dispersing the surplus lands adopted from the mediators.
   To counteract the abuse of the inhabitants by the landlords.
   To guarantee normal or logical utilization of the constrained rural lands through roof on land possessions, combination of land property and production of financial land possessions.
2. The CLR was started in 1988-89 with 100% financial assistance on a pilot project basis in eight districts:
   Rangareddy (AP)
   Sonitpur (Assam)
   Singhbhum (Jharkhand)
   Gandhinagar (Gujarat)
   Morena (MP)
   Wardha (Maharashtra)
   Mayurbhanj (Orissa)
   Durgapur (Rajasthan)

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1. Sadhu and Singh, (2007), "Fundamentals of Agricultural Economics", Himalaya Publishing House, New Delhi.
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UNIT- XI AGRICULTURAL CREDIT

STRUCTURE

11.0 INTRODUCTION

Agricultural credit is considered as one of the most primary contributions for leading all agricultural development programs. In India there is a colossal requirement for appropriate agricultural credit as Indian farmers are exceptionally poor. From the earliest starting point the prime source of agricultural credit in India was moneylenders. After autonomy the Government received the institutional credit policy through different offices like co-agents, business banks, rural country banks and so on to give satisfactory credit to farmers, at a less expensive pace of premium. Additionally, with developing modernisation of agriculture during post-green upheaval period the prerequisite of agricultural credit has expanded further as of late.

11.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about Agricultural Credit in India.
2. Know about NABARD and Co-operative Credit.
3. Can gain knowledge on Rural Indebtedness.

11.2 AGRICULTURAL CREDIT IN INDIA

Agricultural Credit is characterized as a kind of financing used to give subsidizing to agricultural makers. This might be as letters of credit, advances or broker's acknowledgment accounts. This is commonly used to give venture from foreign resources to the farming division. Agriculture credit is a significant primary for agricultural development. Agricultural arrangements have been looked into now and again to give sufficient and convenient accessibility of money to this area. Rural credit framework expect significance in light of the fact that for the vast majority of the Indian country families, reserve funds are insufficient to back farming and other monetary exercises. This combined with the absence of synchronization between income acknowledgment and use and knottiness of agricultural capital ventures. The institutional credit framework is basic for agricultural improvement and its job has additionally expanded in the changed monetary condition. In India a multi-organization policy

involving co-usable banks, planned business banks and territorial rural banks (RRBs) has been pursued to enable credit to agricultural division.

Types of Agriculture Credit

The agriculture credit can be classified on the basis of:

1. According to Tenure of Agricultural Credit for example the credit prerequisite dependent on the timeframe of advances. It jar of three sorts:
    a. Short-Term: It refers to the credits required for gathering the momentary necessities of the cultivators. These advances are for the most part for a period not surpassing and reimbursed after the gather. For instance credits required for the buy of manures, HYV seed, for gathering cost on religious or social functions and so on.
    b. Medium-Term: These advances are for a period as long as 5 years. These are the money related necessities to make enhancements for land, purchasing steers or agricultural types of gear, uncovering of waterways and so forth.
    c. Long-Term: These advances are for a time of over 5 years and are commonly required to purchase extra land or tractor or making lasting enhancements for land.
2. According to Purpose of Agriculture Credit: The agriculture credit based intentionally for which the credit is utilized can be of two sorts:
    a. Productive: Productive advances are the credits that are identified with agricultural production and monetarily legitimized. For instance buy of tractor, land, seeds and so on.
    b. Unproductive: Unproductive credit are utilized for individual utilization and irrelevant to gainful action for instance advances for use on relationships, religious functions and so on.

11.3 NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT (NABARD)

National Bank for Agriculture and Rural Development (NABARD) is a summit improvement money related organization in India. It is an establishment completely possessed by Government of India, headquartered at Mumbai with local workplaces all over India. The Bank has been depended with "matters concerning strategy, arranging and tasks in the field of credit for agriculture and other monetary exercises in rural zones in India". NABARD is dynamic in developing monetary consideration policy. This pinnacle National Bank was set up in July 1982 to administer and build up the whole country credit framework including agricultural credit. Subsequently, the significant elements of the Agricultural Credit Department of the RBI and the whole endeavor of the ARDC (Agricultural Refinance and Development Corporation), were taken over by it; the advantages and liabilities of the RBI identifying with the National Agricultural Credit (Long Term Operations) Fund and the National Agricultural Credit (Stabilization) Fund were moved to it; additionally it took over from the RBI the renegotiate, improvement and

statutory review of co-usable banks and RRBs. (The RBI, notwithstanding, keeps on holding its basic command over these banks. The primary urban co-employable banks are likewise its charge.)

The NABARD gives rural credit by method for renegotiate and advances and advances to SCBs (State Cooperative Banks), LDBs (Land Development Banks), RRBs and other endorsed monetary foundations for financing production, marketing and venture exercises identifying with agriculture, rural improvement, little scale businesses, enterprises in modest and decentralized part, bungalow and town enterprises, painstaking work and different artworks and other associated monetary exercises in country zones. The NABARD's offer capital of Rs. 330 crore was contributed similarly by the Central Government and the RBI and its stores were Rs. 1,230 crore, giving possessed resources of Rs. 1,560 crore as at March end 1995. Its different sources of resources are chiefly (a) borrowings from the Central Government, the RBI and the market and (b) its two national country credit reserves. In this manner, toward the finish of March 1995, of the complete resources of about Rs. 18,000 crore available to its, the borrowings from different sources were about Rs. 3,500 crore and it had a general credit extension public to it from the RBI of Rs. 4,000 crore.

The two national resources are National Credit (Long Term Operations) Fund and National Rural Credit (Stabilization) Fund. Toward the finish of June 1995, the two Funds had collected Rs. 8,000 crore and Rs. 800 crore separately. Toward the finish of March 1995, absolute advances and advances exceptional of NABARD were about Rs. 18,000 crore, of which medium-term and long - term renegotiate was more than Rs. 10,000 crore and momentary general credit extension was of more than Rs. 4,000 crore. What's more, the aggregate number of plans endorsed was around 1, 17,000, complete budgetary help (renegotiate) authorized was about Rs. 39,000 crore and incomement were about Rs. 25,000 crore. Reason insightful, the biggest piece of renegotiate help has gone for plans of minor water system, farm motorization, stockpiling and market yards and dairy improvement, and so forth.

The NABARD gives long haul renegotiate to its affirmed plans by method for credits and advances to business banks, 199 memberships to debentures of SLDBs. In the year the all out renegotiate submitted had added up to Rs. 3,800 crore and distributions to about Rs. 3,000 crore. The greater part of the last sum had gone to SLDBs and planned business banks. The all out number of plans secured was 7,500. The renegotiate by the NABARD under the IRDP was just Rs. 620 crore.

Reserve Bank of India (RBI) set up the Agricultural Refinance Corporation (ARC) in 1963 to function as a renegotiating office in giving medium term and long haul agricultural credit to help venture credit requirements for agricultural development. In 1975, ARC was renamed as Agriculture Refinance and Development Corporation (ARDC) to give focussed regard for credit offtake, improvement and development of the agricultural sector. Upon its development in 1982, NABARD assumed

control over the elements of the recent Agricultural Credit Department (ACD) and Rural Planning and Credit Cell (RPCC) of RBI and ARDC.

The Department of Refinance (DOR) manages the present moment and long haul renegotiate elements of NABARD.

Core Functions of the Department

DOR mainly sales with

- Short-term renegotiate for production credit exercises adding to food security
- Medium–term and long haul renegotiate for investment credit exercises for giving a lift to private capital development in agriculture
- DOR likewise goes about as an subsidy channelizing office for different Government of India plans

Short-term Refinance

NABARD gives by method for renegotiate, credits and advances reincomeable on investment or on the expiry of fixed periods not surpassing year and a half, to Cooperative Banks and Regional Rural Banks for production, marketing and obtainment exercises. The primary target of momentary renegotiate arrangement is to enhance the resources of banks and to improve credit stream at the ground level. These exercises include:

1. Short-term renegotiate to State Cooperative Banks and Regional Rural Banks for regular agricultural activities
2. Short-term renegotiate to State Co-employable Banks and Regional Rural Banks for purposes other than occasional agricultural tasks, for example, rural marketing, fisheries sector, working capital for MSME, social framework ventures, and so forth. Renegotiate is likewise broadened StCBs in regard of advances made to State and Apex Level Agencies occupied with discount obtainment, stocking and circulation of composts/agricultural data sources, financing Bonafide Commercial or Trade exchanges.
3. Short-term renegotiate to Scheduled Commercial Banks, State Co-employable Banks and Regional Rural Banks for loaning to weavers

Long-term/Medium-Term Refinance

NABARD gives long haul and medium-term renegotiate to the accompanying foundations to enhance their resources for giving sufficient credit to supporting venture exercises of farmers and rural craftsmans, and so forth.

1. Scheduled Commercial Banks
2. Regional Rural Banks
3. State Cooperative Banks
4. District Central Cooperative Banks
5. State Cooperative Agriculture and Rural Development Banks
6. Primary Urban Cooperative Banks
7. NABARD Subsidiaries

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8. North Eastern Development Finance Corporation Ltd. (NEDFI)
9. Non-Banking Financial Companies (NBFCs)
10. Small Finance Banks (SFBs)

The exercises spread both Farmsector just as off-farm part exercises. The residency of renegotiate is in the scope of year and a half to 5 years.

Medium-term Conversion

NABARD gives medium term credit points of confinement to revolution of momentary yield advances advancemented for financing regular agricultural activities (SAO) to State Co-usable Banks and Regional Rural Banks for giving alleviation to the farmers whose crops have been harmed because of Natural disasters.

Long-term loans to State Government

NABARD gives long haul (LT) advances to State Governments to add to the offer capital of agreeable credit organizations. This reincomement based help is planned to empower bigger loaning programs by these cooperatives to meet the agricultural credit prerequisites.

Kisan Credit Card

GoI presented Kisan Credit Card Scheme during 1998-99 to meet the production credit necessity of farmers in a convenient and bother free way. The plan was additionally stretched out for the venture credit necessities of farmers viz. unified and non-farm exercises in the year 2004. The Kisan Credit Card plot, as updated in 2013, targets giving satisfactory and convenient credit support from the financial framework under a solitary window with adaptable and disentangled method to the farmers for their development and different needs as showed underneath:

1. To meet the transient credit necessities for development of yields
2. Post-gather costs
3. Produce marketing advance
4. Consumption prerequisites of farmer family unit
5. Working capital for support of farm resources and exercises associated to agriculture
6. Investment credit prerequisite for agriculture and associated exercises

The total of sectors 'a' to 'e' above will frame the transient credit farthest point parcel and the total of sectors under 'f' will shape the long haul credit cutoff partition. The plan is under usage in the whole nation through the institutional credit structure including Commercial Banks, Regional Rural Banks and Cooperatives. RBI screens the plan for Commercial Banks and NABARD for Regional Rural Banks and Cooperatives.

Interfacing for GoI Schemes

As the nodal organization for various plans supported by the GoI, NABARD has acted/goes about as an interface between different partners.

1. Capital Investment Subsidy Schemes

a. Agri-Clinics and Agri-Business Focuss, MoA
b. Schemes under Animal Husbandry Sector
c. National Project on Organic Agriculture
d. Solar Schemes, Ministry of New and Renewable Energy (MNRE) (plans shut)
e. Agricultural Marketing Infrastructure (AMI) sub-plan of ISAM, Ministry of Agriculture (MoA) (plot shut)
f. New AMI Principles

2. Investment Subvention Scheme for Crop Loans, GoI
3. Broad Achievements of the Department at the National Level

Short Term Refinance

A measure of Rs.79,704 crore was dispensed as transient renegotiate during the year 2017-18. Reason astute and organization insightful separation is given as under (Rs. In Crore)

Purpose	StCBs	RRBs
ST-SAO	45,000	10,000
Additional ST-SAO	15,308	4,828
ST-Others (Including Weavers)	3,150	1,418
Total	63,458	16,246

Long Term Refinance

A measure of Rs.65,240 crore was dispensed under long haul renegotiate during the year 2017-18. Office savvy separate is given as under: (Rs. In Crore)

Agency	Achievement
Scheduled Commercial Banks	40,000
Regional Rural Banks	11,537
State Co-operative Banks	7,086
State Co-operative Agriculture and Rural Development Banks	2,594
NABARD Subsidiaries	1,228
NBFCs	2,794
Total	65,240

11.4 CO-OPERATIVE CREDIT

A credit association is a part claimed monetary agreeable, fairly constrained by its individuals, and worked to advance frugality, masterminding credit at aggressive rates, and giving such a significant number of other budgetary services to its individuals. The Co-usable Credit Institutions in India can be delegated under a three-level structure.

1. Primary Credit Societies at the bottom
2. Central Co-operative Bank at the middle
3. State Co-operative Bank at the top

The primary social orders are working in the different towns and towns, the Central Banks at the area base camp and the State Co-employable Banks at the state capitals shaping the pinnacle of the framework. The Reserve Bank of India helps the co-employable structure by giving concessional fund through NABARD as General Lines of Credit for loaning to agricultural and unified exercises. Along these lines, the

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entire framework is coordinated with the Banking structure of the nation. Give us a chance to have a talk about these foundations individually.

The Primary Agricultural Credit Societies

An primary society is a relationship of borrowers and non-borrowers dwelling in a specific territory and looking into the business undertakings of each other. As enrollment is for all intents and purposes public to all occupants of an area, individuals of various status are carried together into the regular association.

Central Co-operative Banks

A Central Co-usable Bank is a league of primary social orders in a predefined region. Where participation of a Central Co-employable Bank is confined to primary social orders just, it is known as a 'banking association'. These days, people are likewise conceded as individuals from practically all Central Co-employable Banks.

State Co-operative Banks

At the highest point of the co-usable banking, there are State Co¬operative Banks, sorted out with the object of pulling in stores from the rich urban classes. These Banks are additionally more reasonably prepared to fill in as channel between the co-employable development and the joint stock banks.

COOPERATIVE CREDIT: AN EVALUATION

The major deficiencies in the working of the cooperative societies are as follows:

- The embodiment or fundamental highlights of helpful financial framework must be a bigger dependence on resources prepared locally and a lesser and lesser interdependent on higher credit establishments. In any case, numerous PACSs are at present subject to CCBs and have bombed wretchedly in assembling rural investment funds. Overwhelming interdependent on foreign resources has, from one viewpoint, made the individuals less cautious not regarding these resources as their own and on the other prompted more noteworthy foreign impedance and control. In general, this has made the cooperatives a "fair, wasteful and static framework".
- The agreeable credit foundations are tormented by the issue of abnormal state of over-levy. These over-levy have stopped up the procedure of credit reusing since they have considerably decreased the limit of cooperatives to give advances.
- The rural helpful organizations have an abnormal state of NPAs
- An enormous number of country helpful credit establishments have brought about significant misfortunes.
- The Primary Agricultural Credit Societies is the most significant connection in the momentary helpful credit structure. Be that as it

may, the vast majority of them are excessively little in size to be practical and reasonable. Plus, a few of them are additionally torpid while some are old.

- Because of their strong financial position and hold over the rural economy, huge landowners have cornered more prominent advantages from cooperatives. This is something contrary to what the organizers proposed.
- There are impressive local variations in the conveyance of credit by helpful social orders for six States (Gujarat, Maharashtra, Karnataka, Kerala, Punjab and Tamil Nadu) representing 70 percent of the momentary credits given by the PACSs as of end-March 2010.
- The powers which vest in the service under the agreeable laws and standards are all-unavoidable. Throughout the years, State has come to pick up practically complete money related and managerial authority over the cooperatives, in the process smothering their development. Rather than reinforcing the base, a powerless base was incomprehensibly extended according to plan targets and a massive legislative and semi-administrative superstructure was made.

11.5 RURAL INDEBTEDNESS

Rural obligation has been the ever green sidekick of the Indian workers. As indicated by an outstanding saying, the Indian laborer is conceived incomeing off debtors, lives owing debtors and passes on in the red. The commonness of poverty among agricultural working families is underlined by the predominance of the rural obligation. With the expansion in the degree of poverty, the degree of obligation increases. The weight of obligation passes on from age to age. The quantity of those in the hold of this awful issue is even now huge, in spite of lively endeavors to unravel it. Country obligation has eaten into the very vitals of our rural social structure. Subsequently it has drawn the consideration of sociologists, financial experts, organizers, civil servants and others since long time past. While obtaining cash the borrower does not focus on his compensating limit and for him even a little obligation turns into a snare out of which he can't turn out. Advances from the cash loan specialist bolster the farmer as the executioner's rope underpins the hanged. Rural acquiring and rural obligation imply two unique things. There is nothing incorrectly in obtaining particularly when the resources are required for agricultural activities. Be that as it may, obligation emerges when the income of the farmer isn't adequate to reimburse the obligation brought about or when he spends his income for ineffective purposes and does not put something aside to satisfy his obligation. At the point when the borrower neglects to reimburse the advance in time and the credit continues collecting, he ends up obliged.

Causes of Rural Indebtedness in India

The following are the important causes of rural indebtedness in India

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Poverty

Indian farmers are extremely poor and don't have any past sparing to reimburse their obligation or to make enhancement for their property. In this way, destitution powers the cultivators to increase their obligation.

Defective Agricultural Structure

Rural obligation is additionally come about because of faulty agricultural structure which incorporates imperfect land residency framework, reception of obsolete methods, expanding weight ashore, inadequate marketing, nonappearance of elective sources of income and so on.

No Past Savings

Indian farmers tend to obtain subsidize for the improvement of their property and agricultural activity despite the fact that they have no past sparing.

Unproductive Expenditure

Indian farmers are especially acquainted with make tremendous consumptions for ineffective purposes, for example, marriage and other social functions. All these need to prompted developing obligation of the farmers of the nation.

Ancestral Debt

Indian farmers inherit their father's debt.

Unscrupulous Moneylender

Moneylenders in India are likewise particularly in charge of the developing rural obligation in the nation as they energize the Indian fa

Uncertain Monsoon

Indian agriculture is particularly relying upon storm. Around 65 percent of the agricultural activities are rainfed. As downpour is most unsure, in this manner, agricultural task has turned into a bet in rainstorm.

Illiteracy of Farmers

The majority of the Indian farmers are ignorant. Corrupt moneylenders or mahajans are using this shortcoming of farmers to make an endless loop of obligation.

Fragmentation

There is a developing pattern of sub-division and discontinuity of land property which has been bringing about a poor degree of income for Indian farmers. Such poor income powers the farmers towards developing obligation.

Litigation

There is an expanding inclination of case among the Indian farmers which has amplified the issue of obligation in the nation.

Defective Marketing

Agricultural marketing in India is particularly faulty. This never permits the farmers a gainful cost for their products and now and then powers them to go for a misery sale. Such a circumstance is exceptionally in charge of developing poverty and obligation among the Indian farmers.

Natural Calamities

Regular cataclysms like floods and dry seasons and backwardness of agriculture are additionally generally in charge of developing rural obligation in the nation. Along these lines, every one of these factors are in charge of developing rural obligation in India.

Consequences of Rural Indebtedness in India

The consequences of rural indebtedness in India are analysed below:

Pauperization

Developing rural obligation is exceptionally in charge of developing pauperization of the little and negligible farmers in India.

Loss of Investment

Enthusiasm for development is slowly being lost by the little farmers as they are denied of a lot of their produce by the moneylenders because of their obligation.

Distress Sale

Indebted small farmers are forced to sell their produce at a very minimum price.

Bonded Labour

Obligation makes a class of landless workers and inhabitants who have almost no or nothing to income to the proprietors and moneylenders and become the fortified work or fathoms of the landowners. All these have direct social outcomes in India.

Poor Livelihood

The developing rural obligation has raised the issue of reimbursement of credit alongside intrigue which powers the farmers to embrace a poor job.

Transfer of Land

The developing weight of obligation has constrained the farmers even to offer their territory to moneylenders and mahajans and consequently become a landless agricultural worker.

Evil Social Impact

Developing obligation for the most part partitions the general public into haves and have-not's prompting an ascent of class clashes in the general public. This is extremely hazardous. In this association, Prof. Thomas has properly watched, "A general public that sinks into obligation resembles a spring of gushing lava.

It emits as class strife. The general public is caused with wastefulness that obstructs the pace of development." Thus, rural obligation have numerous underhanded results. Consequently, steps must be taken to expel it as right on time as would be prudent.

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Remedial Measures to Solve Rural Indebtedness in India

The accompanying measures can handle the issue of country obligation in India in a compelling way:

Settlement of Old Debt

Legitimate enactment to ordered to drop or to diminish the degree of genealogical obligations and non-institutional obligation held by the little farmers of the nation.

Reducing Dependence on Moneylenders

Institutional credit system including co-agents, business banks, rural country banks and so on be extended for diminishing the interdependent of the farmers on the cash moneylenders.

Control of New Loans

Legitimate advances must be taken in such a way thus, that farmers don't fall back on getting for non-gainful purposes. Hence inefficient advances for the festival of relationships and births ought to be totally maintained a strategic distance from. By bestowing appropriate instruction and purposeful publicity, Government can help the farmers of the nation to wind up cognizant in this regard.

Control over Moneylenders

So as to control the developing danger of country obligation, exercises of the moneylenders ought to be controlled. Meanwhile, different state governments have passed various acts to make it required with respect to moneylenders to get permit for their cash loaning tasks and furthermore to keep up legitimate accounts and furthermore to have a command over the pace of premium charged by them.

Checking Transfer of Land

So as to have a keep an eye on the exchange of land for non-agricultural purposes because of non-payment of credit by the farmers the Government has just ordered different laws for ensuring the farmers, intrigue.

Encouraging Savings

Farmers ought to likewise be urged to receive sparing prpublicsity on a standard way. The co-employable credit social orders can likewise assume a significant job in such manner. Meanwhile appropriate enactment has been instituted in certain states to avoid the clearance of land by the farmers to the moneylenders.

11.6 LET US SUM UP

In agricultural business credit has a noticeable influence especially in developing nations. When agricultural credit should resemble a Hangsman's rope yet around then agricultural business was on customary

level without logical service. Presently, the conditions have especially changed with the development of innovation and information spread about the utilization of new sources of info and their service credit gives command over the capital needs of the farmer. By and large, in farming the fixed capital investment is colossal which has originated from dad to child through legacy yet the issue emerges for the running expenses. For high income an isale mix of land, work, capital and association is significant however in the event that any of these is constrained it will tell on the farming productivity especially when the capital is short. Agricultural Credit could be characterized as "move of resources from the must have's not's, either legitimately or in a roundabout way." The immediate exchange comes on account of private loaning offices like cash bank from the town or something else, relatives, companions, huge land holders. The aberrant exchange of resources is from the institutional offices, for example, nationalized business banks, agreeable agricultural credit social orders, land development banks, rural country banks, National Agricultural Bank for Agricultural and Rural Development (NABARD). In the institutional organizations like banks the surplus income is put something aside for getting the premium which the bank loans to the individuals who acquire to contribute for gainful business. In the cutting edge arrangement of farming the job of institutional agricultural credit has turned out to be profoundly significant which has been encouraged by the socialization of business banks who were timid in putting resources into agricultural part since 1970's. Presently, the inquiry that emerges is in what manner should the farmer utilize agricultural credit so the matter of farming advancementes toward becoming granting and meets the twin destinations of Farmthe executives in benefit boost and family welfare.

11.7 UNIT-END EXERCISES

1. Explain the medium term Agricultural Credit.
2. Give a detail about Kissan Credit Card.

11.8 CHECK YOUR ANSWER HERE

1. Medium-Term: These credits are for a period as long as 5 years. These are the budgetary necessities to make enhancements for land, purchasing steers or agricultural types of gear, uncovering of waterways and so on.
2. GoI presented Kisan Credit Card Scheme during 1998-99 to meet the production credit necessity of farmers in an opportune and bother free way. The plan was additionally stretched out for the venture credit necessities of farmers viz. unified and non-farm exercises in the year 2004. The Kisan Credit Card plot, as overhauled in 2013, targets giving sufficient and auspicious credit support from the financial framework under a solitary window with adaptable and disentangled system to the farmers for their development and different needs.

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11.9 SUGGESTED READINGS

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UNIT -XII AGRICULTURAL LABOURS

STRUCTURE

12.0 INTRODUCTION

The distinctive component of rural economy of India has been the development of agriculture work in the crop production. The wonders of under-business, a work in advancement and surplus populace are noticeable among agricultural workers. Agricultural works establish the most ignored class in Indian rural sector and are exceedingly chaotic. The income level of these laborers is very low and work is very sporadic. Further, these laborers need elective work because of absence of preparing and aptitudes.

Agriculture work might be characterized as work who works in agriculture or united exercises for the entire or part of the year as an end-result of (in real money or kind or both) for full-time or low maintenance work. The agriculture worker has no hazard in the development, and no privilege of rent or contract ashore however simply takes a shot at someone else's territory for wages. The definition incorporates laborers who are occupied with other agri-based occupation, for example, dairy farming, agriculture, poultry and so on. It likewise incorporates the individuals who don't work during the time yet just for part of the year. Agriculture work Enquiry Committee characterized agriculture work family unit as the family unit whose principle source of income is determined as wages for taking a shot at farmes of others.

12.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about Agricultural Labour in India.
2. Know about the characteristics of Agricultural Labourers.
3. Can gain knowledge on Agricultural Labour and Wages.

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12.2 MEANING AND CONCEPT OF AGRICULTURAL LABOUR

Agricultural workers are those people who work on the place that is known for others on wages for the real piece of the year and win a noteworthy part of their income as an payment as wages for works performed on the agricultural farmes possessed by others. The main Agricultural Labor Enquiry Committee of 1950-51 viewed those laborers as agricultural specialists who typically worked for 50 percent of more days on the payment of wages. The second Agricultural Labor Enquiry Committee, 1956-57 creditd an expansive view and incorporated every one of those laborers into agricultural workers who were severely occupied with agriculture and partnered exercises like creature cultivation, dairy, piggery, poultry farming and so on.

This first advisory group again ordered the agricultural laborers into two unique classifications, for example,

a. Attached workers are those laborers who are appended to some other farmer family units based on a composed or oral understanding. These appended laborers are functioning according to the desires of their lords and are not allowed to work at some other spot. They are working both in the house and homesteads of their lords. In this way, these appended workers are filling in as serfs or hirelings and they are otherwise called fortified workers.
b. On the other hand, easygoing workers are those laborers who are allowed to work in any farm on the payment of day by day compensation. In India these easygoing workers include:
    i. small farmers having an extremely little size of possessions who commit a large portion of their time taking a shot at the Farmof others;
    ii. landless workers who solely work for other people;
    iii. tenants who work on rented land however work more often than not on the place where there is others;
    iv. sharecroppers who additionally fill in as agricultural workers.

12.3 CHARACTERISTICS OR FEATURES OF AGRICULTURAL LABOURERS

The main features, characterizing Indian agricultural labor are as follows :

Agricultural Labourers are Scattered

Agricultural work in India is as a rule generally dissipated over huge number of towns in the nation thus can't be successfully sorted out.

Unskilled and Lack Training

Agricultural workers, particularly in littler towns are commonly incompetent specialists carrying on agricultural task at a low wages. Greater part of them are commonly moderate and convention bound. There is not really any inspiration for change or improvement. Since there is no elective business, the agricultural worker needs to do a wide range of work-both farm and household for landowner.

Unorganised

Agricultural workers are not sorted out like industrial workers. These workers are unskilled and insensible. They live in towns dissipated everywhere throughout the nation. Consequently they couldn't be sorted out in associations. As needs be, it is hard for them to sale with the land proprietors and secure great wages.

Low Social Status

Most agricultural laborers have a place with the discouraged classes, which have been dismissed for a very long time. In certain pieces of India, agricultural workers are transitory, moving looking for employments at the season of gathering with a ton of separation of family life, disengagement of instruction of kids and various different debilitations.

Abudance of Labour

The agricultural workers are bounteous in supply in connection to their investment. It is just during the planting and collecting seasons that there seems, by all accounts, to be nearful business. Be that as it may, when these seasons are finished, larger part of agricultural specialists are jobless particularly in territories, where there is single trimming design. The issue is additionally disturbed because of the way that these works are commonly untalented thus couldn't discover elective business.

Low Bargaining Power

Because of all the previously mentioned components, the bartering force and position of agricultural workers in India is exceptionally feeble. Truth be told, a significant huge number of them are in the grasp of town cash loan specialists, landowners and commission operators, regularly a similar individual working in all the three limits. The agricultural work is the most abused class of individuals of India. Subsequently somewhat as a result of elements foreign their ability to control and mostly due to their natural saleing shortcoming, the

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Farmworkers have been getting extremely low wages and have accordingly to live in a hopeless sub-human life.

12.4 AGRICULTURAL LABOURS AND WAGES / MINIMUM WAGE FOR AGRICULTURAL WORKERS IN INDIA

A specialist advisory group set up by the service has prescribed setting the lowest income permitted by law at Rs 375 per day, higher than the current pace of Rs 321 for agriculture or untalented laborers and Rs 371for semi-talented specialists. The advisory group has concocted another policy that gets rid of the variety in wages dependent on area, aptitudes and area. It has proposed an "adjusted eating regimen policy" to process least wages. The proposals, whenever creditd, will bring about a compensation section extending from Rs 340 for Bihar and Uttar Pradesh to Rs 447 for Gujarat. An extra Rs 55 has been proposed as lease recompense for laborers in urban India. The proposition, which comes in front of the general decisions, will help a large number of laborers whenever endorsed by the focal warning body of the work service.

The service of work and business had comprised the board of trustees under the chairmanship of Anoop Satpathy, individual of the VV Giri National Labor Institute, in January 2017 to survey and prescribe policies to compute the national the lowest income permitted by law. The council presented its report to the work secretary on Thursday. The report will be set before the focal warning board and tripartite bodies for conferences and endorsement, following which the work service will advise the national the lowest income permitted by law.

12.5 LET US SUM UP

Farm workers establishing about 23% of entire rural populace have been existing in sub-human conditions for quite a long time. They have been misused and abuseed by the proprietors. Till the beginning of Independence nothing was really done to improve their part. Under the Indian Constitution, everybody should be given equivalent public door in instruction, work, and so on. Further the Constitution requests that the Government will be useful to those sectors of the general public which are powerless and in reverse. The Government has exceptional obligation regarding improving the monetary states of the Farmworkers. Further, in nowadays, expanded Farmproduction through better agricultural association and the board has turned into an absolute necessity.

12.6 UNIT-END EXERCISES

1. Explain the 'unorganized' characteristics of Agricultural Labourers in India.
2. What is the minimum wage described by GOI for Agricultural labourers?

12.7 CHECK YOUR ANSWER HERE

1. Agricultural workers are not sorted out like industrial workers. These workers are unskilled and insensible. They live in towns dissipated everywhere throughout the nation. Thus they couldn't be sorted out in associations. Likewise, it is hard for them to sale with the land proprietors and secure great wages.
2. An master board of trustees set up by the Government has suggested setting the lowest income permitted by law at Rs 375 every day, higher than the current pace of Rs 321 for agriculture or incompetent specialists and Rs 371for semi-talented laborers.

12.8 SUGGESTED READINGS

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UNIT – XIII NATIONAL AGRICULTURAL POLICY

STRUCTURE

13.0 INTRODUCTION

Agricultural policy portrays a lot of laws identifying with local agriculture and imports of remote agricultural products. Governments generally execute agricultural strategies with the objective of accomplishing a particular result in the household agricultural product markets. In connection to the previous, Akarowhe (2017) propounded that agricultural arrangements are pathways of improving the exercises include in trimming, domesticated animals, ranger service, handling and marketing of agricultural product. Agricultural policies are foreordained objectives, targets and pathway set by an individual or government to accomplish a predetermined result, to support the individual(s), society and the countries' economy on the loose. Agricultural arrangements mull over the primary, optional and tertiary procedures in agricultural production. Results can include, for instance, an ensured supply level, price soundness, product quality, product choice, land use or business.

13.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand about the National Agricultural Policy, 2000
2. Know about the National Commission on Farmers in India.

13.2 NATIONAL AGRICULTURAL POLICY, 2000

Agricultural policy of a nation is for the most part planned by the Government for raising agricultural production and profitability and furthermore for raising the degree of income and way of life of farmers inside a positive time allotment. This strategy is detailed for all round and complete improvement of the agricultural part. In India, the primary targets of agricultural strategy are to evacuate the serious issues of

agricultural division identified with ill-advised and wasteful employments of regular resources, power of low-esteem agriculture, poor money saving advantage proportion of the sectoral exercises and unimportant development of co-operative farming and other self improvement establishments.

National Agricultural Policy Document, 2000

On 28th July, 2000, the NDA Government made public a National Agriculture Policy imagining more than 4 percent yearly development through proficient utilization of resources and innovation and expanded private investment while accentuating on price insurance to farmers in the WTO system. The arrangement planned for catapulting agricultural development to more than 4 percent for each annum by 2005. This development is to be accomplished through a blend of measures including basic, institutional, agronomic, natural, conservative and assessment changes. The policy plan has been required because of the generally poor development of agriculture experienced during the 1990s. The Policy Document watched, "Capital insufficiency, absence of infrastructural backing and request side limitations, for example, controls on development, stockpiling and clearance of agricultural products and so on have kept on influencing the financial action of agricultural division. Thus, development has likewise would in general loosen during the 1990s".

As the agricultural area guarantees the food security and nourishment to this tremendous size of populace of India and furthermore supplies immense amount of crude materials for extending modern base alongside making surplus for fares therefore a quick and evenhanded reward framework for the farming network alongside accomplishing quicker development pace of the sector ought to be the significant sectors of agricultural changes. Accordingly, the National Agricultural Policy (2000) has taken the accompanying significant goals:

1. Attaining a development rate above 4.0 percent per annum in the agricultural sector;
2. Attaining a development which depends on effective utilization of resources and furthermore makes arrangement for preservation of our dirt, water and bio-decent variety;
3. Attainment of development with price, i.e., achieving a development whose effect would be far reaching crosswise over locales and various classes of farmers;
4. Attaining a development that is request driven and take into account the need of residential markets and guaranteeing expansion of advantage from fares of agricultural products despite difficulties from financial development and globalization;

5. Attaining a development that is reasonable industrially, naturally and financially.

Sustainability in Agriculture

The new arrangement looks to present financially reasonable, actually strong, earth non-corrupting and non-dangerous and socially adequate utilization of characteristic resources of the nation for advancing the idea of manageable agriculture. So as to satisfy this system, the accompanying measures are proposed in the new arrangement:

1. To use unutilized fruitless badlands for agriculture and afforestation.
2. To contain biotic weights ashore and to control unpredictable division of agricultural terrains for non-agricultural employments.
3. To improve trimming force through multi-editing and between trimming.
4. To stress sound utilization of ground and surface water so that over-abuse of ground water resources can be checked. To embrace better advances, for example, trickle and sprinkler water system framework in order to organize increasingly monetary and productive utilization of water.
5. To receive vivaciously a long haul point of view plan for reasonable downpour encouraged agriculture by embracing watershed policy and water gathering technique for improvement of 66% of edited region of the nation which is reliant on precipitation.
6. Involvement of farmers and landless workers will be looked for in the development of fields/ranger service programs on gigantic public no man's land by giving satisfactory money related motivating forces and qualification of trees and fields.

Food and Nutritional Security

So as to meet the developing weight of populace development and to give food and nourishing security to such an enormous populace, unique endeavors will be made for raising the profitability and production of crops and along these lines to meet the prerequisite of crude materials of extending agro-based enterprises. Exceptional pressure will be made for the development of new yield assortments, particularly nourishment crops, with higher healthy benefit. The arrangement has paid due accentuation for the development of downpour nourished water system, agriculture, agriculture, roots and tubers manor crops, fragrant and restorative plants, honey bee keeping and sericulture for expanding food supply and boosting sends out alongside age of work in rural

territories. High need has additionally been given on the improvement of creature cultivation, dairy, poultry and aquaculture in order to enhance agriculture, expanding creature protein accessibility in food bushel and furthermore for producing exportable surpluses. The strategy likewise energized the development of feed yields and feed trees in order to meet the developing requirement for feed and feed prerequisites. The strategy has supported the association of co-agents and the private division for the development and improvement of creature cultivation, dairy and poultry farming.

Development and Transfer of Technology

The policy recommended that the Government ought to empower use of biotechnology, remote detecting advances, vitality sparing innovations, pre-and post-collect advances, and innovation for natural insurance. In addition, the Government will make a new endeavor to move towards a system budgetary supportability of augmentation benefits in a satisfied way. The Government will likewise attempt extraordinary measures for enabling ladies and furthermore to assemble their abilities for improving their entrance to inputs, innovation procedure and other farming resources.

Incentives and Investment in Agriculture

The arrangement recommended that the Government should try sufficient endeavors for improving the terms of exchange for agriculture alongside related assembling division. In like manner, endeavors will be made to audit and excuse the structure of assessments on food grains, other business crops and furthermore extract obligation on farm hardware and actualizes. The Government has resolved to keep agriculture foreign domain of assessments and chose to proceed with the present system of agricultural sponsorships. The, new strategy articulation creditd the issue of fall in public part investment in agricultural sector and chose to venture up public investment for narrowing rural irregular characteristics and furthermore for quickening improvement of constant framework.

What's more, private division investment in agriculture will be energized in some modern zones like agricultural research, post-reap the executives, marketing and human resource improvement. In addition, endeavors would be made for setting up agro-handling units in coordinated effort between the maker co-agents and the corporate area.

Policy on Institutional Structure

The strategy gave due accentuation for transforming the Institutional structure where the methodology on country development and land changes will give weight on the accompanying issues:

1. Constrongation of property all through the nation following the example of north western states.
2. Steps for redistribution of roof surplus grounds and waste-lands among the landless farmers and jobless people.
3. Adopting occupancy changes for perceiving the privileges of inhabitants and tenant farmers.
4. Promotion and development of rent markets for raising the size of possessions by making lawful arrangements in order to give private arrive on rent for development and agro-business purposes.
5. Recognizing the privileges of ladies ashore.
6. Making arrangement for refreshing and improvement of land accounts through computerization and furthermore by issuing area pass books to every one of the farmers.

The policy has made course of action for development through contract farming and land renting plans for permitting quickened innovation move, capital inflow and guaranteed marketing game plans for certain yields, particularly of oilseeds, cotton and plant crops.

Risk Management

The National Agricultural Policy (2000) gave due significance for the development of National Agriculture Insurance Scheme (NAIS) in order to cover all yields and all farmers over the nation by giving bundle protection arrangement guaranteeing security from all dangers in pre-and post-reap tasks, incorporating marketing changes in agricultural costs. Privatization of agriculture and price assurance to farmers in the post-quantitative confinement (QR) system would be a piece of the Government's methodology to cooperative energies agricultural development. The focal point of the new policy is on effective utilization of resources and innovation, satisfactory accessibility of credit to farmers and shielding them from occasional and price changes. Throughout the following two decades, the policy intends to accomplish a development rate more than four percent for each annum in the agricultural sector. The strategy archive saw that private division support would be advanced through contract farming and land renting course of action, to permit quickened innovation move, capital inflow, guaranteed markets for yield production, particularly of oilseeds, cotton and agricultural crops. Additionally, private sector investment in agriculture would be empowered, especially in regions like agricultural research, human resource development, post gather the executives and marketing.

In perspective on destroying of quantitative confinements (QRs) on imports according to WTO concession to agriculture, the strategy has suggested plan of product savvy methodologies and game plans to shield

farmers from unfavorable effect of undue price vacillations on the planet market and advance fares. The strategy likewise saw that the Government would broaden inclusion of future markets to limit the wide variances in product costs as additionally for supporting their dangers. The policy would have liked to accomplish feasible improvement of agriculture, make beneficial work and raise ways of life. The arrangement has additionally imagined developing a "National Livestock Breeding Strategy" to meet the necessity of milk, meat, egg and domesticated animals products and to upgrade the job of draft creatures as a source of vitality for farming activities and transport. The policy archive referenced that plant assortments would be secured through an enactment to empower research and rearing of new assortments, especially in the private sector, in accordance with India's contributions under the "Exchange related Intellectual Property Rights" (TRIPs) understanding.

The farmers would, in any case, be permitted to spare, use, trade, offer and sell their 'farm spared seeds', with the exception of marked seeds of secured assortments for business reason. The policy archive saw that the improvement of creature agriculture, poultry, dairy and aquaculture would get high need to differentiate agriculture, expanding accessibility of creature protein in the food crate and for producing exportable surpluses. A high need would be concurred to develop new area explicit and monetarily practical improved assortments of agriculture and agriculture crops, domesticated animals species and aquaculture as additionally protection and prudent utilization of germplasm and other bio-decent variety resources. In addition, the residential agriculture business sector would be changed. The arrangement further referenced that the limitations on the development of agricultural products all through the nation would be continuously destroyed. The structure of expenses on food grains and other business crops would be looked into and think.

The extract obligation on materials, for example, farm apparatus and executes and manures utilized as contributions to agricultural assessment gathering framework. Fitting measures would be adopted to guarantee that agriculturists, all things considered, stayed foreign the administrative and assessment gathering framework. The policy additionally saw that so as to ensure the enthusiasm of farmers with regards to quantitative limitations, persistent observing of universal costs would be attempted and proper levy assurance would likewise be given. The strategy account additionally referenced that rural zap would be given high need as a prime mover for agricultural improvement. The utilization of new and sustainable sources of vitality for water system and other agricultural purposes would be supported. At long last, the strategy archive saw that the dynamic systematization of rural and Farmcredit would be proceeded for giving auspicious and sufficient credit to farmers. Additionally, try would likewise be made to give a bundle

protection arrangement to the farmers, directly from planting of yields to post-reap tasks, incorporating market vacillations in the costs of agricultural produce.

Appraisal of the New Agricultural Policy

The New Agricultural Policy (2000) has been considered as a fair one thinking about the present prerequisite. The new arrangement has adopted a co-ordinated policy for bringing Green Revolution, White Revolution (identified with milk and dairy products) and Blue Revolution (identified with water/fish culture). In this way, the strategy has been named as an policy of promising Rainbow Revolution. Thinking about the developing prerequisite of food for achieving nourishment independence and to accomplish food security for the a large number of individuals of the nation the strategy has confronted an incredible test. To satisfy this prerequisite satisfaction of 4 percent development rate in agricultural yield is an absolute necessity. Be that as it may, the New Policy has not spelt out any such objective in quantitative terms. Besides, the New Policy has likewise neglected to distinguish those regressive states which are as yet slacking in using their agricultural potential. Hence, a decent methodology ought to be attempted to cure these provisos. Thirdly, the New Policy contended for empowering private investment in agriculture which would support the huge farmers, however the huge quantities of little farmers are not going to be upheld by such private venture which should be advanced by public investment. Fourthly, the New Policy contended for private area support through contract farming via land renting game plans. Yet, introduction of such a stage in a work surplus economy is exceedingly flawed. Finally, there is an absence of co-appointment between the Central and State Governments in actualizing different special strides for the development of agricultural sector. Along these lines, the middle and the states should co-ordinate in executing different arrangements of new strategy and ought to build up an observing component to assess the usage of the policy in a most reasonable way.

For the Tenth Plan time frame (2002-07), the credit stream into agriculture and partnered exercises from all financial organizations is anticipated at Rs. 7,36,370 crore, which is multiple occasions the credit stream during the Ninth Plan. Hence, under the general impression that Indian agriculture works in the midst of various limitations and controls and those farmers don't get the advantages of organized commerce when contrasted with different areas of the economy, the new National Agricultural Policy, 2000 in this way has observed this impression and proposed liberating of agriculture sector from different confinements. The Central Government has taken a lead in revoking some of prohibitive

enactments. Notwithstanding, as agriculture is a state subject, the vast majority of the confinements are really forced by states, for example, Andhra Pradesh, Tamil Nadu, Gujarat and Maharashtra. Accordingly; the State Governments should make viable strides for liberating agriculture. In this association, the Economic Survey, India, 2000-2001 watched, "For the Indian farmer, it is fundamental that he looks to the entire nation as an indication of unlimited market. After further publicing up of the exchange system under WTO from April 2001, it is even more fundamental that farmers look not exclusively to the household market, yet in addition hold onto publicings in the worldwide market for improved worth included acknowledgment and broadening. Fare of prepared agro-products would be the way to improved fare acknowledgment which is conceivable just if the residential arrangements permit unhindered development, stockpiling and liberal exchange system. In this way, for agriculture related products, sources of info and services, all limitations including SSI reservation would need to be evacuated."

13.3 NATIONAL COMMISSIONS ON FARMERS

The National Commission on Farmers (NCF) is an Indian commission constituted on November 18, 2004 under the chairmanship of Professor M.S. Swaminathan to address the nationwide calamity of farmers suicides in India. The Terms of Reference reflected the priorities listed in the Common Minimum Programme. The NCF submitted four reports in December 2004, August 2005, December 2005 and April 2006 respectively. The fifth and final report was submitted on October 4, 2006. The reports contain suggestions to achieve the goal of "faster and more inclusive growth" as envisaged in the Policy to 11th Five Year Plan and are collectively termed the M.S.Swaminathan report for farmers.

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The National Commission on Farmers, led by Prof. M. S. Swaminathan, submitted five reports through the period December 2004 - October 2006. Following from the initial four, the last report concentrated on reasons for famer distresseds and the ascent in farmer

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suicides, and suggests tending to them through an all encompassing national strategy for farmers. The discoveries and proposals envelop issues of access to resources and government managed savings privileges. This synopsis is a brisk reference point featuring the key discoveries and arrangement proposals under land changes, water system, credit and protection, food security, work, profitability of agriculture and farmer aggressiveness.

Background

The National Commission on Farmers (NCF) was comprised on November 18, 2004 under the chairmanship of Professor M.S. Swaminathan. The Terms of Reference mirrored the needs accounted in the Common Minimum Program. The NCF submitted four reports in December 2004, August 2005, December 2005 and April 2006 separately. The fifth and last report was submitted on October 4, 2006. The reports contain proposals to accomplish the objective of "quicker and increasingly comprehensive development" as conceived in the Policy to eleventh Five Year Plan.

Terms of Reference

The NCF is mandated to make suggestions on issues such as:

- A medium-term technique for nourishment and food security in the nation so as to move towards the objective of all inclusive food security after some time;
- Enhancing efficiency, productivity, and supportability of the significant farming frameworks of the nation;
- Policy changes to significantly expand stream of rural credit to all farmers;
- Special programs for dryland farming for farmers in the parched and semi-bone-dry districts, just as for farmers in bumpy and seaside regions;
- Enhancing the quality and cost aggressiveness of Farmproducts in order to make them universally focused;
- Protecting farmers from imports when worldwide costs fall forcefully;
- Empowering chose nearby bodies to successfully monitor and improve the natural establishments for economical agriculture;

Key Findings and Recommendations

Causes for farmers' distress

Agrarian misery has driven farmers to end it all lately. The significant reasons for the agrarian emergency are: incomplete

motivation in land change, amount and nature of water, innovation weariness, access, ampleness and practicality of institutional credit, and public doors for guaranteed and gainful marketing. Unfriendly meteorological components add to these issues. Farmers need guaranteed access and command over primary resources, which incorporate land, water, bioresources, credit and protection, innovation and learning the board, and markets. The NCF suggests that "Agriculture" be embedded in the Concurrent List of the Constitution.

Land Reforms

Land changes are important to address the fundamental issue of access to arrive for the two crops and domesticated animals. Land possessions imbalance is reflected in land proprietorship. In 1991-92, the portion of the base portion of the rural family units in the complete land possession was just 3% and the top 10% was as high as 54%.

Table 1: Distribution of Land

Land Holdings	% of House Holds	% of Land Holdings
Land Less	11.24	-
Sub-margin holdings (0.01 - 0.99 acres)	40.11	3.80
Marginal holdings (1.00 - 2.49 acres)	20.52	13.31
Small holdings (2.50 - 4.99 acres)	13.42	18.59
Medium holdings (5 - 14.99 acres)	12.09	37.81
Large holdings (15 acres + above)	2.62	26.67

Some of the main recommendations include:

- Distribute roof surplus and waste terrains;
- Prevent preoccupation of prime agricultural land and timberland to corporate part for non-agricultural purposes.
- Ensure brushing rights and regular access to backwoods to tribals and pastoralists, and access to basic property resources.

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- Establish a National Land Use Advisory Service, which would have the ability to connection land use choices with biological meteorological and marketing factors on an area and season explicit premise.
- Set up an instrument to direct the clearance of agricultural land, in light of quantum of land, nature of proposed use and classification of purchaser.

Irrigation

Out of the gross planted region of 192 million ha, rainfed agriculture adds to 60 percent of the gross edited zone and 45 percent of the all out agricultural yield. The report suggests:

- A exhaustive arrangement of changes to empower farmers to have supported and fair access to water.
- Increase water supply through water gathering and revive of the spring ought to end up compulsory. "Million Wells Recharge" program, explicitly focused at private wells ought to be propelled.
- Substantial increase in investment in water system division under the eleventh Five Year Plan allocated between huge surface water frameworks; minor water system and new plans for groundwater energize.

13.4 LET US SUM UP

The main ever National Agriculture Policy was reported in July, 2000. The Policy looks to actualise the huge undiscovered capability of Indian agriculture and targets accomplishing a development rate more than 4 percent for every annum in the agriculture part. It likewise tries to accomplish development with price, i.e., development, which is broad crosswise over locales and farmers. It additionally underscores the need to take into account local markets and boost profits by fares of agricultural products. Different measures have been taken to operationalise the policy. In compatibility of the arrangement, national strategies on sectors like participation, seeds and expansion have been encircled. The general foodgrains production of 212.02 million tons during the year 2001-02 was an untouched account. This was made conceivable by different factors, including steps taken to guarantee the accessibility of primary contributions to farmers. This speaks to a noteworthy move from the automatic to the Macro Management method of arranging and execution to operationalise territorially separated techniques and guarantee that constrained money related designations find convenient and compelling application in the expected zones. State-wise work plans are planned in an intuitive mode. Twenty-seven on-going Centrally supported plans have been incorporated and the

resources accessible under them have been united to give help to the States to usage of the work plans. During the current money related year, a measure of Rs.700 crore has been given under the plan. The Government has reported a Rs 50,000 crore program for relieving the challenges, being looked by the agricultural sector. The program, to be spread more than three years, will address issues like agri-infrastructural facilites, no man's land improvement, minor water system, working and reasonability of cooperatives, evaluating, confirmation, stockpiling of agro-products, their handling, cold chains and current abattoirs. Under the program, to be worked by the NABARD, credits will be made accessible to borrowers at low focused rates.

13.5 UNIT-END EXERCISES

1. List the objectives of National Agricultural Policy, 2000.
2. Explain the Land Reforms under National Agricultural Policy, 2000.

13.6 CHECK YOUR ANSWER HERE

1. Objectives:
    a. Attaining a development rate above 4.0 percent per annum in the agricultural area;
    b. Attaining a development which depends on proficient utilization of resources and furthermore makes arrangement for protection of our dirt, water and bio-decent variety;
    c. Attainment of development with price, i.e., accomplishing a development whose effect would be far reaching crosswise over areas and various classes of farmers;
    d. Attaining a development that is request driven and take into account the need of household markets and guaranteeing amplification of advantage from fares of agricultural products even with difficulties from financial development and globalization;
    e. Attaining a development that is reasonable industrially, ecologically and monetarily.
2. Land changes are important to address the fundamental issue of access to arrive for the two crops and domesticated animals. Land property disparity is reflected in land proprietorship. In 1991-92, the portion of the base portion of the rural family units in the complete land possession was just 3% and the top 10% was as high as 54%.

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13.7 SUGGESTED READINGS

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UNIT- XIV WTO AND AGRICULTURE

STRUCTURE

14.0 INTRODUCTION

After more than 7 years of negotiations the Uruguay Round multilateral exchange saleings were finished up on December 15, 1993 and were officially confirmed in April 1994 at Marrakesh, Morrocco. The WTO Agreement on Agriculture was one of the numerous understandings which were consulted during the Uruguay Round. The usage of the Agreement on Agriculture began with impact from 1.1.1995. According to the arrangements of the Agreement, the created nations would finish their decrease responsibilities inside 6 years, i.e., constantly 2000, while the duties of the developing nations would be finished inside 10 years, i.e., continuously 2004. The least created nations are not required to make any decreases. The products which are incorporated inside the domain of this understanding are what are regularly considered as a major aspect of agriculture aside from that it bars fishery and ranger service products just as elastic, jute, sisal, abaca and coir.

14.1 OBJECTIVES

After studying this unit you will be able to:

1. Understand the agreement between WTO and Indian Agriculture.
2. Know about DOHA agreement on Indian Agriculture.

14.2 WTO AND AGRICULTURE

The WTO Agreement on Agriculture contains arrangements in 3 expansive territories of agriculture and exchange policy: market get to, local help and fare subsidies.

MARKET ACCESS

This incorporates tariffication, levy decrease and access publicings. Tariffication implies that all non-levy hindrances, for example, portions, factor duties, least import costs, optional permitting,

state exchanging measures, deliberate restriction understandings and so forth should be canceled and changed over into an equal duty. Customary duties including those subsequent from their tariffication are to be diminished by a normal of 36% with least pace of decrease of 15% for each tax thing over a multi year time span. Developing nations are required to decrease levies by 24% in 10 years. Developing nations as were keeping up Quantitative Restrictions because of equalization of payment issues, were permitted to offer roof ties rather than tariffication. Uncommon protect arrangement permits the burden of extra obligations when there are either import floods over a specific level or especially low import costs when contrasted with 1986-88 levels.

It has likewise been stipulated that base access equivalent to 3% of household utilization in 1986-88 should be set up for the year 1995 ascending to 5% toward the finish of the usage time frame.

DOMESTIC SUPPORT

For residential help strategies, subject to decrease duties, the complete help given in 1986-88, estimated by the Total Aggregate Measure of Support (all out AMS), ought to be diminished by 20% in created nations (13.3% in developing nations). Decrease responsibilities refer to add up to degrees of help and not to singular products. Policies which add up to local help both under the product explicit and non product explicit classes at under 5% of the estimation of production for created nations and under 10% for developing nations are likewise prohibited from any decrease duties. Strategies which have no or at most insignificant, exchange twisting impacts on production are barred from any decrease responsibilities ('Green Box'- Annex 2 of the Agreement on Agriculture www.wto.org. The rundown of exempted green box arrangements incorporates such policies which give services or advantages to agriculture or the rural network, public stock-holding for food security purposes, household nourishment help and certain de-coupled payments to makers including direct payments to production constraining projects, gave certain conditions are met.

Special and Differential Treatment provisions are also available for developing country members. These include purchases for and sales from food security stocks at administered prices provided that the subsidy to producers is included in calculation of AMS. Developing countries are permitted untargeted subsidised food distribution to meet requirements of the urban and rural poor. Also excluded for developing countries are investment subsidies that are generally available to agriculture and agricultural input subsidies generally available to low income and resource poor farmers in these countries.

Exceptional and Differential Treatment arrangements are additionally accessible for developing nation individuals. These incorporate buys for and sales from food security stocks at directed costs gave that the subsidy to makers is incorporated into estimation of AMS. Developing nations are allowed untargeted financed nourishment distribution to meet necessities of the urban and rural poor. Likewise avoided for developing nations are venture appropriations that are commonly accessible to agriculture and agricultural info sponsorships for the most part accessible to low income and resource poor farmers in these nations.

EXPORT SUBSIDIES

The Agreement contains arrangements with respect to individuals pledge to diminish Export Subsidies. Created nations are required to decrease their fare sponsorship use by 36% and volume by 21% in 6 years, in equivalent portion (from 1986 – 1990 levels). For developing nations the rate cuts are 24% and 14% separately in equivalent yearly portion more than 10 years. The Agreement additionally indicates that for products not expose to trade appropriation decrease duties, no such subsidies can be allowed later on.

14.3 INDIA'S CONTRIBUTIONS TOWARDS WTO AND INDIAN AGRICULTURE DEED

MARKET ACCESS

As India was keeping up Quantitative Restrictions because of equalization of payments reasons (which is a GATT predictable measure), it didn't need to embrace any responsibilities as to market get to. The main duty India has attempted is to tie its primary agricultural products at 100%; prepared nourishments at 150% and eatable oils at 300%. Obviously, for some agricultural products like skimmed milk powder, maize, rice, spelt wheat, millets and so on which had been bound at zero or at low bound rates, arrangements under Article XXVIII of GATT were effectively finished in December, 1999, and the bound rates have been raised considerably.

DOMESTIC SUPPORT

India does not give any product explicit help other than market price support. During the reference time frame (1986-88), India had market price bolster programs for 22 products, out of which 19 are incorporated into our rundown of duties documented under GATT. The products are - rice, wheat, bajra, jawar, maize, grain, gram, groundnut, rapeseed, toria, cotton, Soyabean (yellow), Soyabean (dark), urad, moong, tur, tobacco, jute, and sugarcane. The all out product explicit

AMS was (-) Rs.24,442 crores during the base time frame. The negative figure emerges from the way that during the base time frame, with the exception of tobacco and sugarcane, global costs of all products was higher than household costs, and the product explicit AMS is to be determined by subtracting the residential cost from the worldwide cost and after that increasing the resultant figure by the amount of production.

Non-product explicit sponsorship is determined by considering appropriations given for manures, water, seeds, credit and power. During the reference time frame, the absolute non-product explicit AMS was Rs.4581 crores. Considering both product explicit and non-product explicit AMS, the absolute AMS was (-) Rs.19,869 crores for example about (-) 18% of the estimation of all out agricultural yield.

Since our complete AMS is negative and that too by an immense greatness, the subject of our endeavor decrease duties did not emerge. In that capacity, we have not adopted any responsibility in our calendar documented under GATT. The computations for the marketing year 1995-96 demonstrate the product explicit AMS figure as (-) 38.47% and non-product explicit AMS as 7.52% of the absolute estimation of production. We can further deduct from these computations the residential help stretched out to low income and resource poor farmers gave under Article 6 of the Agreement on Agriculture. This still keeps our total AMS underneath the de limit level of 10%.

EXPORT SUBSIDIES

In India, exporters of agricultural products don't get any immediate sponsorship. The main subsidies accessible to them are as (an) exception of fare benefit from personal duty under sector 80-HHC of the Income Tax Act and this is likewise not one of the accounted appropriations as the whole income from Agriculture is excluded from Income Tax fundamentally. (b) appropriations on expense of cargo on fare shipments of specific products like organic products, vegetables and floricultural products. We have in actuality demonstrated in our calendar of duties that India maintains whatever authority is needed to take plan of action to subsidies, (for example, money compensatory support) during the execution time frame.

14.4 DOHA AGREEMENT ON AGRICULTURE

The Doha Round started with a pastoral – level gathering in Doha, Qatar in 2001. For the following pastoral (Sattle) meet created nations attempted to push an unbalanced concurrence on Singapore issues down the throat of developing nations, yet last effectively stood up to. This while, charges were flung on created nations for overlooking

formative difficulties of developing and least created nations. This caused created nations to consent to a "Formative Agenda" and new round of arrangements – Doha Development Round Begun at fourth pastoral meet in Doha. It is said this was consented to by created nations in desire that substance of "Singapore Issues" will be concurred by dissenters. First proposition in Qatar, in 2001, required the end consent to focus on generous improvement in market get to decreases and extreme disposal of all types of fare appropriations (counting under Green and Blue box) and significant decreases in exchange twisting help.

The United States is being asked by the EU and the developing nations, driven by Brazil and India, to make a creatively liberal idea for decreasing exchange twisting household support for agriculture. The United States is demanding that the EU and the developing nations consent to make creatively generous decreases in levies and to confine the quantity of import-delicate products are of most worry to created nations like the European Union, while developing nations are concerned about unique products – those absolved from both duty cuts and subsidy decreases in light of development, food security or job contemplations. Brazil has underscored decreases in exchange twisting residential sponsorships, particularly by the United States (some of which it effectively tested in the WTO U.S Brazil cotton debate, while India has demanded countless exceptional products that would not be presented to more extensive market publicing.

State of Play on Agriculture Negotiations in the Doha Round WTO Agriculture

The agriculture exchanges apply to the products secured under the Agreement on Agriculture (AOA) of the World Trade Organization (WTO), specifically, all primary agricultural products, the products got from them and all handled agricultural products. This additionally incorporates wines, spirits, tobacco products, strands, for example, cotton, fleece and silk and crude creature skins for calfskin production. Fish and fish products and ranger service products are excluded. The three principle components or "columns" of the Agreement on Agriculture (AOA) and the saleings are: (I) market get to, (ii) local help and (iii) send out challenge. The Doha Ministerial Declaration of November 2001 submitted Members to far reaching saleings went for: generous enhancements in market get to; decreases of, with the end goal of eliminating, all types of fare appropriations; and significant decreases in exchange twisting household support. Exceptional and differential treatment for developing Members is additionally proposed to be a basic piece of the modalities. The Chair of the Committee on Agriculture (Special Session) drew out a fourth amendment of draft modalities for agriculture on 6 December 2008. Exchanges on this content started in September 2009. From July 2009, the Chair has been conduction dialogs along two tracks: to be specific, information necessities for actualizing

modalities and issues sectioned or generally commented on in the draft agriculture modalities content issued on 6 December 2008. The talks in the main track are planned for distinguishing the base information that should be attached with modalities and contriving the arrangements where this information will be exhibited. The fundamental components of the draft agriculture proposition are condensed underneath:

Market Access

The traditions tax is the obligation charged on the import of any great into the household domain of a nation. The arrangements at the WTO are on bound traditions duties, which are the roof rates advised to the WTO, while the taxes which are really connected by the traditions experts on imports into a nation are the connected traditions levies. The connected levies can't normally surpass the bound traditions taxes in the WTO Member nations. Created nations would need to diminish their bound duties in equivalent yearly portions more than five years with a general least normal cut of 54%. Developing nations would need to diminish their last bound duties in equivalent yearly portions more than ten years undertaking a greatest by and large normal cut of 36%. Both created and developing Members would have the adaptability to assign a suitable number of duty lines as Sensitive Products, on which they would embrace lower tax cuts. Notwithstanding for these products, nonetheless, there must be "significant improvement" in market get to, thus the littler slices would need to be counterbalanced by tax portions permitting more noteworthy access for imports. The three issues being arranged, in this way, are the quantity of Sensitive Products, the duty slices they are to take and the compensatory access through tax shares.

While this adaptability is accessible to both developing and created nations, it is especially significant for created nations to have the option to secure their financially touchy tax lines.

Special Products

This is an exceptional and differential treatment arrangement that permits developing nations some adaptability in the duty slices that they are required to make on an assigned number of products. This is basic for nations, for example, India to meet their food and occupation security concerns and rural development needs. The modified draft modalities of 6 December 2008 propose a SP qualification of 12% of agricultural tax lines. The normal levy cut on SPs is proposed as 11%, including 5% of all out tax lines at zero cuts.

Special Safeguard Mechanism

This is another uncommon and differential treatment arrangement solely for developing nations that gives them the privilege to have plan of action to a Special Safeguard Mechanism (SSM) in view of import

amount and price triggers. The SSM is significant for developing nations so as to shield their poor and powerless farmers from the unfriendly impacts of an import flood or price fall.

The defend obligations under the proposed SSM would be activated by either an import amount trigger or a price trigger. The trigger for conjuring the SSM decides when the defend obligation can be forced. On the off chance that the import amount trigger is set excessively high, the SSM loses all viability since it can then just be utilized in the most outstanding conditions. Similar remains constant if the price trigger is set excessively low.

The primary issues being talked about are: (a) the trigger: for example at the point when the system would be relevant; (b) the size of the cure: for example how high in general obligations can go over the MFN duty; and (c) length of the cure and whether defend obligations could be connected in continuous years. In July 2008, talk was basically focused on the subsequent part, to be specific, the conditions where the pre-Doha bound rates could be ruptured. Trading nations needed an underlying trigger of 40% i.e imports must be at any rate 140% of the past period imports before the nation would force a defend obligation. The G-33 (and India) contended this was awfully high a trigger, viably denying them response to the SSM.

Absurd limitations on the SSM as far as high triggers and lacking cures rout the goal of securing defenseless farmers in developing nations. Given its targets, it must be a basic and successful instrument. The sending out nations then again are looking to guarantee market access into developing nations by attempting to restrict such arrangements. The G-33 alliance has been endeavoring to guarantee a powerful shield instrument.

The G-33 has flowed a lot of reports in the WTO. These reports call for refocusing talks on the development measurement of the measure and offer a reaction dependent on the Group's specialized examination to different prohibitive components being proposed by the SSM adversaries.

Tariff Capping

This is principally a created nation concern, especially a few nations having a place with the G-10, in particular, Japan, Iceland, Switzerland and Norway. These nations force restrictively high taxes on their agricultural products. Tax topping would cut down these high duties, far beyond what might be required by the tax decrease equation. While these created nations are not set up to credit this, then again, on industrial merchandise, the Swiss coefficient in the tax decrease equation restrains all new bound levies to levels underneath the coefficient (aside from the products under adaptabilities).

Tariff Simplification

This is an altogether created nation concern, especially for the EU, Norway, Switzerland and Canada. These nations utilize an enormous number of non-promotion valorem (NAV) levies on their agricultural imports. Developing nations, then again, depend overwhelmingly on promotion valorem (AV) obligations. NAV obligations go about as an extra layer of non-straightforward security. As these are utilized primarily by created nations, they go about as a boundary to market access for developing nation trades. Conversely, on account of industrial merchandise, the draft modalities propose 100% levy disentanglement.

Tropical and Diversification Products and long-standing preferences

The order of the Doha Round submitted Members to tending to the issue of accomplishing the fullest development of exchange tropical agricultural products. The draft modalities, in like manner, propose quicker and more profound cuts on such products. In the WTO agriculture arrangements, the advocates are 10 Latin American nations (the Tropical Products Group). They need the EU, US, Switzerland, Japan and a portion of the other created nation merchants to take quicker and more profound cuts on tropical products.

The order additionally perceived the significance of longstanding inclinations and said that the issue of inclination disintegration would be tended to. According to the modalities being talked about, the taxes on products in a concurred rundown, on which certain nations have been agreed inclinations in imports, would be cut over a more drawn out period or potentially take lower cuts. The defenders here are nations having a place with the African-Caribbean-Pacific (ACP) Group.

The two gatherings included along these lines have contending investments. While the Tropical Products Group need quicker and more profound creation, the ACP Group is looking to ensure its inclination edges. Discourses in the WTO regarding this matter are focused around two angles: (I) the philosophy for decreasing taxes on tropical products and inclination products and (ii) settling on the quantity of products to be incorporated into each rundown. These exchanges have, be that as it may, occurred basically among the EU, US, the Tropical Products Group and the ACP Group. While India isn't an individual from the Tropical Products Group, India also has fare investments in a significant number of the products and has been requesting that the issue ought to be examined in a creatively straightforward way among the bigger WTO participation. India has additionally been consulting to secure its very own advantages in tropical product sends out.

Advancement on the subject was closely linked with an agreement relating to the import of a particular tariff line of bananas. On 15 December 2009, an agreement was signed amongst the ACP, the EU and the Tropical Products Group, namely, the "Geneva Agreement on Trade in Bananas". As per the Agreement, the EU shall maintain an MFN tariff-only regime for the importation of bananas. Thus, there will be no more quotas for the ACP countries. The EU will:

Development regarding the matter was firmly connected with an understanding identifying with the import of a specific levy line of bananas. On 15 December 2009, an understanding was marked among the ACP, the EU and the Tropical Products Group, to be specific, the "Geneva Agreement on Trade in Bananas". According to the Agreement, the EU will keep up a MFN tax system for the importation of bananas. In this manner, there will be no more portions for the ACP nations. The EU will:

1. Cut its MFN import tax on bananas in eight phases, from the present pace of €176/ton to €114/ton in 2017 at the most punctual; and
2. Make the greatest cut first, by €28/ton to €148/per ton, when all gatherings sign the arrangement.

Consequently, Latin American nations will:

1. Not investment further cuts in the structure of the Doha Round of chats on worldwide exchange once it resumes;
2. Settle a few lawful questions pending against the EU at the WTO, some going back similar to 1993.

When the European Parliament gives its agree to the arrangement, the EU will tie its new duty plan – which means it submits not to raise taxes over the new rates. The finish of the Banana arrangement flag that quick development will likewise be made on Tropical Products and Preference Erosion.

Domestic Support

The Agreement on Agriculture recognizes bolster programs that animate production legitimately, and those that are considered to have no immediate impact. Local help that directly affects production and exchange must be decreased. The draft modalities propose cuts in the Overall Trade-twisting Domestic Support (OTDS) just as cuts or tops on the individual classes of residential help, referd to as Amber Box, Blue Box and Green Box support. The present proposition is for a 70% cut in OTDS by the US and 80% by the EU. A 70% slice brings US OTDS to about US$ 14.5 billion, from their present roof of US$ 48.2 billion. This

is still well over their assessed connected degree of US$ 7 billion of every 2007.

Cotton

This issue is of prime significance to Burkina Faso, Benin, Mali and Chad (the Cotton 4). The C-4 proposition on the table infers a 82.2% cut in household support for cotton by the US. Aside from the C-4, it is of criticalness to Brazil and India likewise, both real exporters of cotton. In India, cotton is likewise a politically touchy subject. This issue has seen almost no multilateral dialog at the WTO.

Export Competition

Regarding the draft recommendations of 6 December 2008, created nations are required to dispense with all types of fare sponsorships by 2013. Developing nations need to do as such by 2016. Under the WTO's Agreement on Agriculture, developing nations had the adaptability to give certain appropriations, for example, financing of fare marketing costs, interior and global vehicle and cargo charges and so on. As indicated by the present recommendations, this arrangement would keep on being accessible to developing nations till 2021 for example 5 years past the year 2016 when they would be required to eliminate every other type of fare subsidies.

14.5 LET US SUM UP

The new GATT course of action and WTO system, which joined different trade off recommendations of Arthur Dunkel and which was concluded at Geneva on fifteenth December, 1993, have some genuine ramifications on Indian agriculture. During the keep running up to the GATT understanding, feelings of trepidation were communicated from different corners that India's enthusiasm for agriculture will be antagonistically influenced because of the proposed concession to agricultural issues in Uruguay Round. Fears were raised that the nation might be compelled to lessen the sponsorships accessible to the farmers, eliminate the public appropriation framework and necessarily public up to agricultural imports. It was additionally expected that the conventional privileges of farmers to hold and trade seeds may likewise be obliged. Subsequent to making a ton of portrayal in the last gathering some extra arrangements were made into the last understanding. An intensive examination of this new understanding prompts the end that all in all the nation's advantages won't just be ensured however India may likewise hope to profit because of agriculture being incorporated into the crease of GATT. The understanding has stipulated that nations with a total subsidy of more than 10 percent of the estimation of agricultural produce should

diminish them. In any case, the present degree of sponsorship in India is well underneath this level and this stipulation will accordingly not influence the nation. Also, it has been explained from the new GATT understanding that the utilization sponsorships for focused gatherings of populace as under our public appropriation framework which is essentially focused for the rural and urban poor are authentic and, along these lines, can proceed. Farmers' advantage will likewise be totally secured once the proposed 'sui generis' enactment to ensure plant assortments becomes effective. Under the proposed enactment, right of farmers to hold and trade seeds won't be influenced. The focal element of the concurrence on agriculture is the decrease underway appropriations paid by created nations to their farmers and the moving back of a portion of the non-duty boundaries which have limited agricultural exchange. These arrangements will give advantage to India as the agricultural fares of the nation appreciate a similar and upper hand. Thusly, India's agricultural fares will get an appreciated upgrade, when the motivating force structures in the local economy are starting to work to further their potential benefit.

14.6 UNIT-END EXERCISES

1. Explain the export subsidies in WTO of Indian Agriculture.
2. Explain the tariff crapping of Doha Agreement on Indian Agriculture.

14.7 CHECK YOUR ANSWER HERE

1. The Agreement contains arrangements with respect to individuals duty to lessen Export Subsidies. Created nations are required to lessen their fare subsidy consumption by 36% and volume by 21% in 6 years, in equivalent portion (from 1986 – 1990 levels). For developing nations the rate cuts are 24% and 14% individually in equivalent yearly portion more than 10 years. The Agreement likewise indicates that for products not expose to send out appropriation decrease responsibilities, no such subsidies can be allowed later on.
2. This is basically a created nation concern, especially a few nations having a place with the G-10, to be specific, Japan, Iceland, Switzerland and Norway. These nations force restrictively high levies on their agricultural products. Tax topping would cut down these high duties, far beyond what might be required by the duty decrease recipe. While these created nations are not set up to credit this, then again, on industrial merchandise, the Swiss coefficient in the tax decrease equation restricts all new bound duties to levels beneath the coefficient (with the exception of the products under adaptabilities).

NOTES

14.8 SUGGESTED READINGS

1. Sadhu and Singh, (2007), "Fundamentals of Agricultural Economics", Himalaya Publishing House, New Delhi.
2. Bilgrami, S.A.R. (2010), "An Introduction to Agricultural Economics", Himalaya Publishing House, New Delhi.
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